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| NEWS | 1 | | Web Page for STN Seminar Schedule - N. America |
| NEWS | 2 | JAN 02 | STN pricing information for 2008 now available |
| NEWS | 3 | JAN 16 | CAS patent coverage enhanced to include exemplified prophetic substances |
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| NEWS | 6 | JAN 28 | USGENE now provides USPTO sequence data within 3 days of publication |
| NEWS | 7 | JAN 28 | TOXCENTER enhanced with reloaded MEDLINE segment |
| NEWS | 8 | JAN 28 | MEDLINE and LMEDLINE reloaded with enhancements |
| NEWS | 9 | FEB 08 | STN Express, Version 8.3, now available |
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| NEWS | 12 | FEB 25 | IMSPRODUCT reloaded with enhancements |
| NEWS | 13 | FEB 29 | WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification |
| NEWS | 14 | MAR 31 | IFICDB, IFIPAT, and IFIUIDB enhanced with new custom IPC display formats |
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| NEWS | 23 | MAY 30 | INPAFAMDB now available on STN for patent family searching |
| NEWS | 24 | MAY 30 | DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option |
| NEWS | 25 | JUN 06 | EPFULL enhanced with 260,000 English abstracts |
| NEWS | 26 | JUN 06 | KOREAPAT updated with 41,000 documents |
| NEWS | 27 | JUN 13 | USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications |
| NEWS | EXPRESS | FEBRUARY 08 | CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008 |
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* * * * * STN Columbus * * * * *

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SINCE FILE

TOTAL

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SESSION

FULL ESTIMATED COST

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0.21

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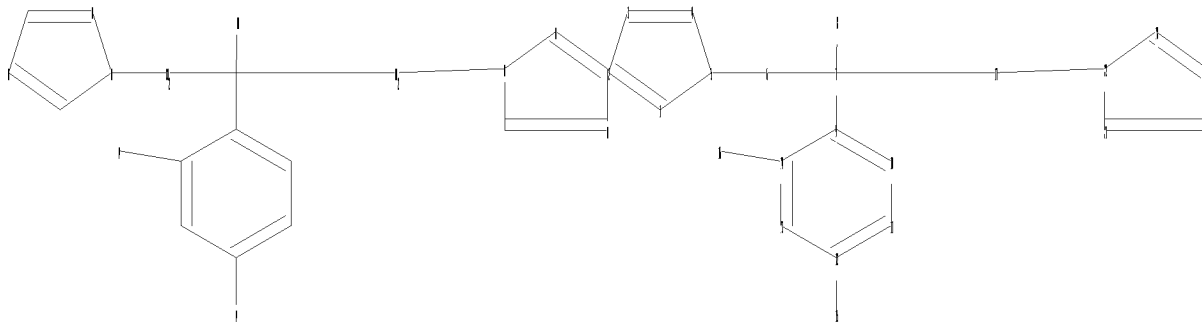
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chain nodes :

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6  7  8  15  16  17
ring nodes :
1  2  3  4  5  9  10  11  12  13  14  18  19  20  21  22
chain bonds :
5-6  6-7  7-8  7-9  7-17  12-15  14-16  17-22
ring bonds :
1-2  1-5  2-3  3-4  4-5  9-10  9-14  10-11  11-12  12-13  13-14  18-19  18-22
19-20  20-21  21-22
exact/norm bonds :
1-2  1-5  2-3  3-4  4-5  7-8  18-19  18-22  19-20  20-21  21-22
exact bonds :
5-6  6-7  7-9  7-17  12-15  14-16  17-22
normalized bonds :
9-10  9-14  10-11  11-12  12-13  13-14

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom

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L1 STRUCTURE UPLOADED

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=> s l1 sss full
FULL SEARCH INITIATED 10:44:36 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -       1577 TO ITERATE

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100.0% PROCESSED       1577 ITERATIONS                   187 ANSWERS
SEARCH TIME: 00.00.01

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L2 187 SEA SSS FUL L1

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=> file caplus
COST IN U.S. DOLLARS                   SINCE FILE       TOTAL
                                      ENTRY       SESSION
FULL ESTIMATED COST                   178.36       178.57

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=> s 12

L3 3976 L2

=> d cbib abs hitstr 3900-3976

L3 ANSWER 3900 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1989:470342 Document No. 111:70342 Original Reference No. 111:11683a,11686a
Fluconazole is a potent inhibitor of antipyrine metabolism in vivo in mice. La Delfa, Ignazio; Zhu, Quan Ming; Mo, Zhengji; Blaschke, Terrence F. (Sch. Med., Stanford Univ., Stanford, CA, USA). Drug Metabolism and Disposition, 17(1), 49-53 (English) 1989. CODEN: DMDSAI. ISSN: 0090-9556.

AB Fluconazole, a bis-triazole antifungal, is distinguished from imidazole antifungals (e.g., ketoconazole) by its potency and pharmacokinetic characteristics. Imidazole-containing compds. are well documented to inhibit the hepatic cytochrome P 450-dependent enzyme system; whether this effect occurs with a bis-triazole agent is unknown. The [¹⁴C]antipyrine breath test was employed to investigate the effects of fluconazole on this enzyme system in CD-1 male mice. Control, ketoconazole (100 mg/kg), and fluconazole (1 and 10 mg/kg) were studied in single- and multiple-dose expts. Fluconazole had potent inhibitory effects on the total (mean = -73%), demethylase (mean = -90%), and nondemethylase (mean = -60%) elimination rate consts. The fraction of the administered radioactivity excreted as ¹⁴CO₂ was decreased by 50-80% in the fluconazole groups. These effects were seen after single- and multiple-dose studies; however, a return to baseline occurred more quickly in the multiple-dose group. These effects were more pronounced than those observed with equipotent doses of ketoconazole. Thus, fluconazole is a potent, partially selective, and reversible inhibitor of the cytochrome P 450-dependent enzyme system in mice. Future studies will be required to assess this property and possible interactions with drugs metabolized by this enzyme system in humans.

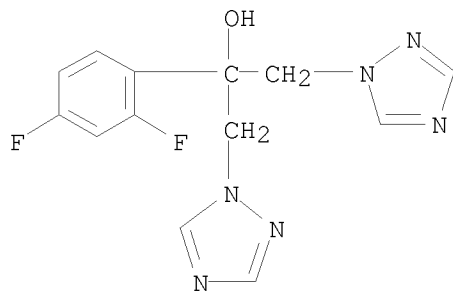
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(cytochrome P 450 inhibition by, drug interactions from)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3901 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

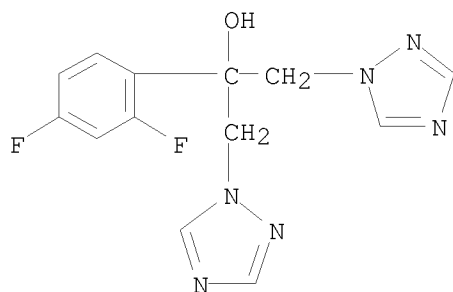
1989:433149 Document No. 111:33149 Original Reference No. 111:5536h,5537a A comparative study of the effects of ketoconazole and fluconazole on 17- β estradiol production by rat ovaries in vitro. Latrille, F.; Charuel, C.; Lodola, A. (Cent. Rech., Lab. Pfizer, Amboise, 37401, Fr.). Research Communications in Chemical Pathology and Pharmacology, 64(1), 173-6 (English) 1989. CODEN: RCOCB8. ISSN: 0034-5164.

AB The effects of ketoconazole and fluconazole, a novel triazole antifungal agent, on 17β -estradiol production in rat ovaries in vitro were compared. For both compds., there was a lag phase, immediately after addition to the test system, during which the rate of estradiol synthesis remained at control values. This may have been due to the time required for uptake of the compound and transfer to its site of action or depletion of endogenous pools of intermediates. After the lag phase, both compds. produced a reduction in the rate of estradiol synthesis. At any given concentration, fluconazole produced a reduction which was substantially less than that observed with ketoconazole. Indeed 2 μ M ketoconazole reduced the rate of estradiol production by greater than 90% while 10 μ M fluconazole caused only a 70% reduction. These findings are consistent with reports that these compds. are inhibitors of cytochrome P 450 and with the reduced sensitivity of mammalian cytochrome P 450 to fluconazole as compared with ketoconazole.

IT 86386-73-4, Fluconazole
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (estradiol formation by ovary response to)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



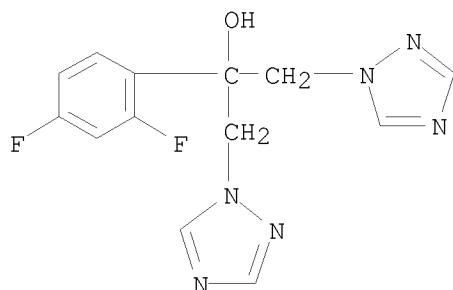
L3 ANSWER 3902 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1989:433087 Document No. 111:33087 Original Reference No. 111:5521a,5524a
 Sputum levels of fluconazole in humans. Ebdon, P.; Neill, P.; Farrow, P. R. (Dep. Med., Glenfield Gen. Hosp., Leicester, LE3 9QP, UK). Antimicrobial Agents and Chemotherapy, 33(6), 963-4 (English) 1989. CODEN: AMACCQ. ISSN: 0066-4804.

AB Fluconazole levels were measured in sputum samples obtained from bronchiectatic volunteers at 4 and 24 h after a single oral dose of 150 mg fluconazole. The levels in sputum were similar to the levels in plasma at both times averaging 3.54 and 3.71 μ g/mL at 4 h and 2.37 and 2.23 μ g/mL at 24 h in plasma and sputum, resp.

IT 86386-73-4, Fluconazole
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (pharmacokinetics of, in human sputum)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



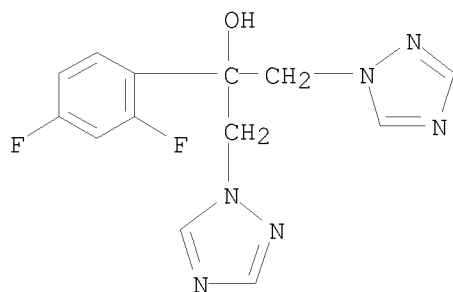
L3 ANSWER 3903 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1989:400084 Document No. 111:84 Original Reference No. 111:7a,10a Assay of fluconazole by megabore capillary gas-liquid chromatography with nitrogen-selective detection. Harris, Steven C.; Wallace, Jack E.; Foulds, George; Rinaldi, Michael G. (Lab. Serv., Audie L. Murphy Mem. VA Hosp., San Antonio, TX, 78284, USA). Antimicrobial Agents and Chemotherapy, 33(5), 714-16 (English) 1989. CODEN: AMACCQ. ISSN: 0066-4804.

AB A megabore column gas-liquid chromatog. method which used N-P detection was developed for the anal. of fluconazole in human plasma, serum, cerebrospinal fluid, or urine. The assay was linear 0.2-200 µg/mL and had an average coefficient of variation of 7%. The suitability of the assay for pharmacokinetic studies was demonstrated.

IT 86386-73-4, Fluconazole
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in blood and cerebrospinal fluid and urine of humans, by gas-liquid chromatog.)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3904 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1989:228479 Document No. 110:228479 Original Reference No. 110:37811a,37814a In vitro activity of fluconazole, a novel bistriazole antifungal agent. Yamaguchi, Hideyo; Uchida, Katsuhisa; Kawasaki, Kenji; Matsunaga, Toshiyuki (Inst. Appl. Microbiol., Univ. Tokyo, Tokyo, 113, Japan). Japanese Journal of Antibiotics, 42(1), 1-16 (Japanese) 1989. CODEN: JJANAX. ISSN: 0368-2781.

AB The in vitro antifungal activities of fluconazole (I), especially against Candida albicans, were investigated. Among 9 medically important yeast species tested, Candida albicans and Candida kefyr were the most sensitive to I with a IC99 range of 0.20-0.39 µg/mL. In contrast, Candida glabrata, Cryptococcus neoformans, and Trichosporon cutaneum were the

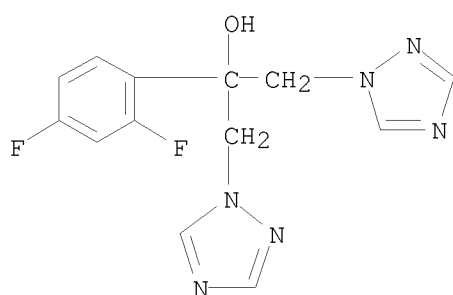
least sensitive, with a IC99 range of 3.13-12.5 µg/mL. IC50 and IC90 of I against *Aspergillus fumigatus* were distributed in the range of 23.9-43.5 and 50->100 µg/mL, resp. The anti-*Candida* activity of I was little affected by serum concns. I at a 0.20 µg/mL concentration significantly inhibited the mycelial phase growth and germ tube elongation of *C. albicans* in a medium supplemented with serum. The germ tube formation and elongation of *C. albicans* cells engulfed by murine peritoneal exudative cells were significantly affected in a medium containing 1 µg I/mL.

IT 86386-73-4, Fluconazole

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(fungicidal activity of, in vitro)

RN 86386-73-4 CAPLUS

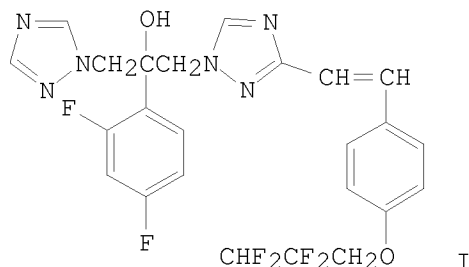
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3905 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1989:225048 Document No. 110:225048 Original Reference No. 110:37151a,37154a
Activity of ICI 195,739, a new oral triazole, compared with that of ketoconazole in the therapy of experimental murine blastomycosis. Tucker, Richard M.; Hanson, Linda H.; Brummer, Elmer; Stevens, David A. (Dep. Med., Santa Clara Valley Med. Cent., San Jose, CA, 95128, USA).
Antimicrobial Agents and Chemotherapy, 33(4), 573-5 (English) 1989.
CODEN: AMACQ. ISSN: 0066-4804.

GI



AB ICI 195,739 (I) a novel orally active triazole, was 50 times more potent than ketoconazole, produced a clin. cure, and completely eradicated residual infection in a murine model of pulmonary blastomycosis. No other previously tested azole has shown similar activity. Fungicidal activity against *Blastomyces dermatitidis* was seen in vitro at concns. 2.5% of

those achieved in serum with protective doses. The pharmacokinetic half-life in mice was >12 h after a single dose and >48 h at steady state.

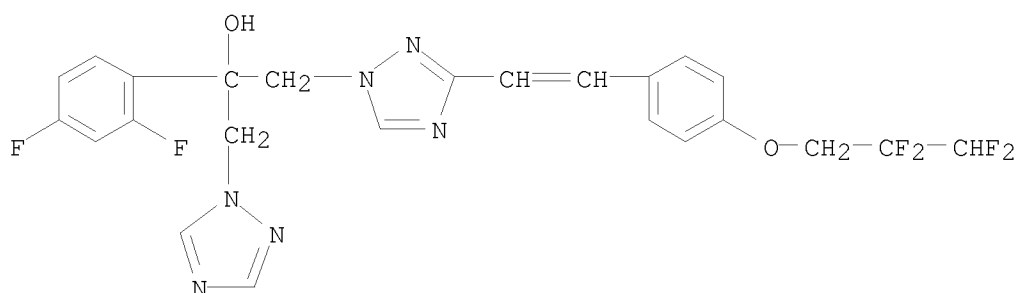
IT 103961-78-0, ICI 195739

RL: BIOL (Biological study)

(Blastomyces dermatitidis infection inhibition by)

RN 103961-78-0 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[2-[4-(2,2,3,3-tetrafluoropropoxy)phenyl]ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)-
(CA INDEX NAME)



L3 ANSWER 3906 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1989:205045 Document No. 110:205045 Original Reference No. 110:33843a,33846a
Pharmacokinetic evaluation of fluconazole in healthy volunteers. Shiba, Kohya; Saito, Atsushi; Miyahara, Tadashi (Sch. Med., Univ. Jikei, Tokyo, 105, Japan). Japanese Journal of Antibiotics, 42(1), 17-30 (Japanese) 1989. CODEN: JJANAX. ISSN: 0368-2781.

AB Fluconazole, a novel triazole antifungal agent, was studied for its toxicity and pharmacokinetics following single oral or i.v. doses to healthy male volunteers. Dosages employed were 25, 50, and 100 mg, orally, and 25 and 50 mg, i.v.. With oral doses, peak plasma levels were achieved in 2 h in all subjects, with maximum plasma levels of 0.53 $\mu\text{g/mL}$ at 25 mg, 0.92 $\mu\text{g/mL}$ at 50 mg, and 1.88 $\mu\text{g/mL}$ at 100 mg showing a clear dose-response. Plasma half-lives of the drug were .apprx.31 h after both oral and i.v. administrations. Its urinary recoveries were .apprx.70% given orally as well as i.v. There was no difference between the areas under the plasma concentration-time curves (AUC) obtained by the 2 administration methods. No side effects nor abnormal clin. test values were reported in any of the subjects studied.

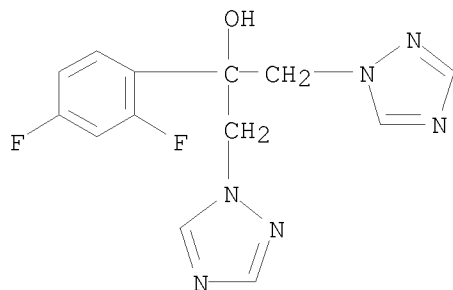
IT 86386-73-4, Fluconazole

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(pharmacokinetics and toxicity of, in humans)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3907 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
1989:205022 Document No. 110:205022 Original Reference No. 110:33839a,33842a
Pharmacokinetics and tissue penetration of fluconazole in rabbits. Walsh,
Thomas J.; Foulds, George; Pizzo, Philip A. (Infect. Dis. Sect., Natl.
Cancer Inst., Bethesda, MD, 20892, USA). Antimicrobial Agents and
Chemotherapy, 33(4), 467-9 (English) 1989. CODEN: AMACCQ. ISSN:
0066-4804.

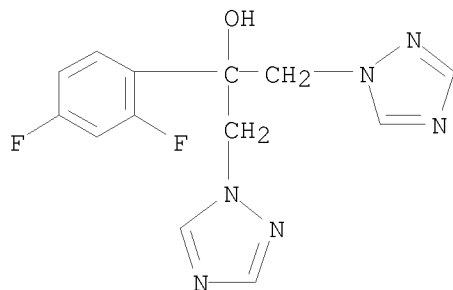
AB Fluconazole is a new bis-triazole antifungal compound with in vivo and in
vitro activity against *Candida* spp. and *Cryptococcus neoformans* and
excellent penetration into cerebrospinal fluid. The penetration of
fluconazole into 9 different tissues at the time of peak and trough plasma
concns. was studied by HPLC in rabbits. Fluconazole penetrated into all
tissues. Tissue/plasma concentration ratios were greater at the time of trough
concns. than at the time of peak concns. The finding that fluconazole
penetrated into target organs commonly infected by *Candida* spp. and *C.*
neoformans further supports the therapeutic potential of fluconazole in
disseminated candidiasis or cryptococcosis in immunocompromised hosts.

IT 86386-73-4, Fluconazole

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(pharmacokinetics of, in tissues)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-
1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3908 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
1989:128137 Document No. 110:128137 Original Reference No. 110:20955a,20958a
Comparison of the efficacies of amphotericin B, fluconazole, and
itraconazole against a systemic *Candida albicans* infection in normal and
neutropenic mice. Van't Wout, Jan W.; Mattie, Herman; Van Furth, Ralph
(Dep. Infect. Dis., Univ. Hosp., Leiden, 2300 RC, Neth.). Antimicrobial
Agents and Chemotherapy, 33(2), 147-51 (English) 1989. CODEN: AMACCQ.
ISSN: 0066-4804.

AB The authors compared the efficacies of the new triazole antifungal drugs
fluconazole and itraconazole with that of amphotericin B in vitro and in
an animal model of systemic candidiasis in normal and neutropenic mice.
Treatment with fluconazole (2.5 to 20 mg/kg orally twice daily),
itraconazole (10 to 40 mg/kg orally twice daily), or amphotericin B (0.1
to 4 mg/kg i.p. once daily) was started 1 day after i.v. injection of 104
C. albicans into normal mice or 103 *C. albicans* into neutropenic mice; the
drugs were administered for 2 days. In normal mice the efficacy of
treatment, which was assessed on the basis of the number of *C. albicans*
cultured from the kidney, was greater for amphotericin B than for the
triazoles. Fluconazole was more potent than itraconazole on the basis of
equivalent doses, although itraconazole was more potent on the basis of free
drug available. In neutropenic mice amphotericin B was less effective
than in normal mice, whereas the triazoles were equally effective in

normal and neutropenic mice. This was not expected, since in vitro amphotericin B was highly fungicidal, whereas both fluconazole and itraconazole had only a minimal effect on the growth of *C. albicans*.

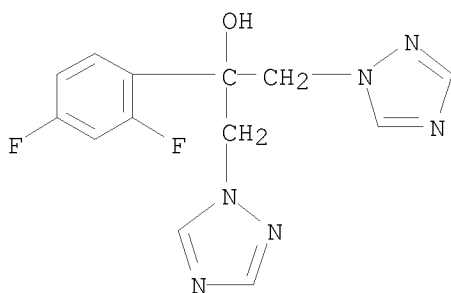
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(*Candida albicans* growth in vitro and neutropenic infection response to)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3909 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1989:128112 Document No. 110:128112 Original Reference No. 110:20947a,20950a

The activity of ketoconazole and other azoles against *Trypanosoma cruzi*: biochemistry and chemotherapeutic action in vitro. Goad, L. John; Berens, Randolph L.; Marr, J. Joseph; Beach, David H.; Holz, George G., Jr. (Dep. Biochem., Univ. Liverpool, Liverpool, UK). Molecular and Biochemical Parasitology, 32(2-3), 179-89 (English) 1989. CODEN: MBIPDP. ISSN: 0166-6851.

AB *Trypanosoma cruzi* epimastigotes in culture medium, and amastigotes and trypomastigotes in cultured human diploid lung cells were exposed to the antimycotic agent ketoconazole and their growth and/or sterol biosynthesis observed. Propagation of epimastigotes and amastigotes was impaired by concns. of ketoconazole achievable in human serum, and amastigotes were more sensitive than were epimastigotes. Epimastigotes and trypomastigotes (non-dividing stage) displayed changes in their membrane sterol content such that the amts. of normal, end-product sterols (ergosterol, ergosta-5,7-dien-3 β -ol, 24-ethylcholesta-5,7,22-trien-3 β -ol, 24-ethylcholesta-5,7-dien-3 β -ol) were notably decreased and the amts. of 14 α -Me sterol precursors of these sterols (24-methylenedihydrolanosterol, obtusifolliol, lanosterol) were increased. Other azole drugs, intraconazole and fluconazole, when tested on epimastigotes, evoked the same qual. pattern of changes in free sterols. Itraconazole was nearly as potent as ketoconazole, but fluconazole was much less potent. The nature of the sterols found in *T. cruzi* and the actions of azole drugs on their biosynthesis were similar in many respects to those observed in fungi and in *Leishmania* species. By analogy, it would seem that the primary mechanism of action of azole drugs on *T. cruzi* life-cycle stages is the impairment of the cytochrome P 450 sterol 14 α -demethylase. The consequent loss of normal sterols and accumulation of 14 α -Me sterols may be responsible for the coincident retardation or cessation of growth.

IT 86386-73-4, Fluconazole

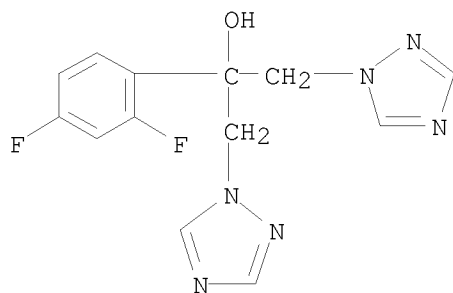
RL: BIOL (Biological study)

(*Trypanosoma cruzi* infection therapy with, sterol metabolism response in relation to)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-

1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3910 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1989:128099 Document No. 110:128099 Original Reference No. 110:20943a,20946a
Interference of antimycotics and other drugs with methohexital hypnosis in rats. Awouters, Frans; Niemegeers, Carlos J. E.; Janssen, Paul A. J.

(Dep. Pharmacol., Janssen Res. Found., Beerse, Belg.). Drug Development Research, 16(1), 85-91 (English) 1989. CODEN: DDREDK. ISSN: 0272-4391.

AB Compds. of various pharmacol. and chemical classes were studied for their interaction with methohexital hypnosis. Rats were treated daily for 5 days with an oral dose of a test compound or solvent. On days 1, 5, and 8 methohexital was injected i.p. and the duration of hypnosis was measured. Three types of interaction with methohexital hypnosis were observed Acute prolongation of hypnosis on day 1 was the most marked effect of fluconazole (ED50 8.66 mg/kg), but this occurred also with phenobarbital (ED50 26.4 mg/kg) and diphenylhydantoin (ED50 .apprx.160 mg/kg). Tolerance to prolongation, i.e., a decrease of the hypnosis time by >50% from day 1 to day 5, was most marked with phenobarbital (ED50 12.6 mg/kg) and diphenylhydantoin (ED50 113 mg/kg) but was also found with fluconazole (ED50 22.6 mg/kg). Shortened hypnosis times on day 8 occurred with phenobarbital (ED50 .apprx.40.0 mg/kg) and diphenylhydantoin (ED50 .apprx. 160 mg/kg). The antimycotic itraconazole, the antidiarrheal loperamide, the thymosthenic agent ritanserine, and the antiallergics astemizole and levocabastine were devoid of interactions with methohexital. Based on the basal activity of the test compds. in rats, interference with methohexital hypnosis was most pronounced with phenobarbital, followed by fluconazole, and diphenylhydantoin.

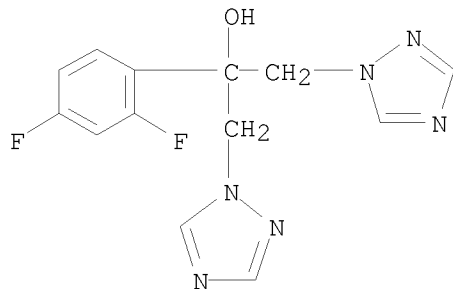
IT 86386-73-4, Fluconazole

RL: PRP (Properties)

(interaction of, with methohexital)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



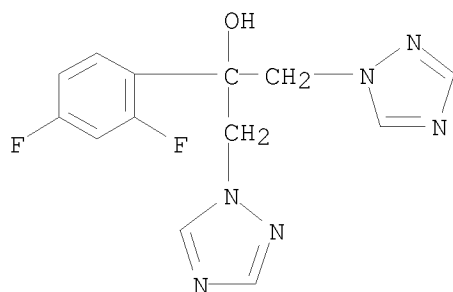
1989:88070 Document No. 110:88070 Original Reference No. 110:14385a,14388a
Chemotherapeutic activity in a mouse model of cryptococcosis with
cutaneous and nasal involvement. Polak, Annemarie; Dixon, D. M.
(Hoffmann-La Roche and Co. Ltd., Pharm. Res., Basel, Switz.). Mycoses,
31(10), 501-7 (English) 1988. CODEN: MYCSEU. ISSN: 0933-7407.

AB A rhinotropic, dermatotropic isolate of *Cryptococcus neoformans* was used
to produce generalized systemic infection in mice. Cutaneous involvement
with gross nasal enlargement was reproducible and was used in conjunction
with mortality to measure the progress of infection in chemotherapy
studies. Nasal enlargement and death were scored over a period of 50 days
after infection and used to calculate an index of infection. The first signs
of infection (nasal enlargement) were seen 15 days after i.v. injection of
104 cells of *C. neoformans* per mouse. The effects of antifungal
chemotherapy depended on the start of treatment, with more favorable
effects resulting from earlier treatment initiation. The best activity
was seen with ICI 195739 (highly active) and fluconazole, followed by
itraconazole and ketoconazole. Only high doses of amphotericin B were
active. 5-Fluorocytosine was only active when given early in the course
of the infection. Terbinafine and amorolfine were inactive. This model
provides a way to examine directly the antifungal effects in disseminated
cutaneous cryptococcosis.

IT 86386-73-4, Fluconazole 103961-78-0, ICI 195739
RL: BIOL (Biological study)
(cryptococcosis of nose and skin response to, in mouse)

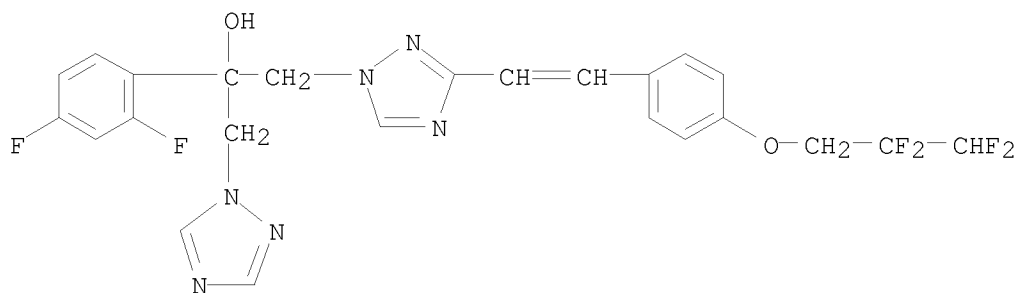
RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-
1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



RN 103961-78-0 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[2-[4-(2,2,3,3-
tetrafluoropropoxy)phenyl]ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)-
(CA INDEX NAME)



1989:68880 Document No. 110:68880 Original Reference No. 110:11187a,11190a
A sensitive and simplified HPLC analysis for the determination of fluconazole in human plasma. Kim, Eun J.; Lee, Hye S.; Zee, Ok P.; Lee, Sung T. (Korea Res. Inst. Chem. Technol., Daejeon, 302-343, S. Korea). Archives of Pharmacal Research, 11(3), 250-2 (English) 1988. CODEN: APHRDQ. ISSN: 0253-6269.

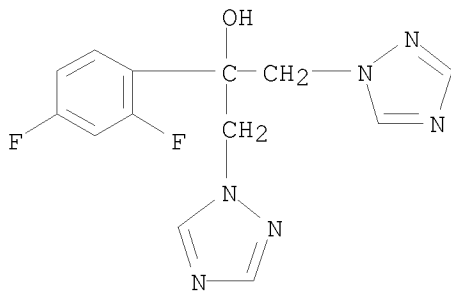
AB A sensitive HPLC method for the determination of fluconazole in human plasma is described. The chromatog. employed a Superisorb S-5 C8 column. The mobile phase was acetonitrile/0.2 M Temed buffer (pH 7.0) (25:75), and UV detection was at 261 nm. The calibration curve of fluconazole in plasma ranging 0-10 µg/mL was linear with the correlation coeffs. of 0.9900. The limit of detection was 0.3 µg/mL. The average recovery of the drug was 89.1 %. After oral administration of single dose (150 mg) of fluconazole in man, Cmax and Tmax were 3 µg/mL and 4 h, resp.

IT 86386-73-4, Fluconazole

RL: ANT (Analyte); ANST (Analytical study)
(determination of, in human blood plasma by HPLC)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3913 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1989:50809 Document No. 110:50809 Original Reference No. 110:8213a,8216a
Effects of two oral antimycotics, ketoconazole and fluconazole, upon steroidogenesis in rat adrenal cells in vitro. Eckhoff, C.; Oelkers, W.; Baehr, V. (Inst. Toxikol. Embryonalpharmakol., Freie Univ. Berlin, Berlin, D-1000, Fed. Rep. Ger.). Journal of Steroid Biochemistry, 31(5), 819-23 (English) 1988. CODEN: JSTBBK. ISSN: 0022-4731.

AB Rat adrenal cells were incubated with various concns. of 2 orally active azole antimycotics, ketoconazole and fluconazole, in order to evaluate the effects on steroidogenesis. The influence of both drugs on mammalian cytochrome P 450 dependent enzymes was investigated in this study. Ketoconazole inhibited ACTH-stimulated corticosterone (IC50 = 0.9 µM) and aldosterone secretion (IC50 = 1.4 µM) and enhanced 11-deoxycorticosterone output at low concns. but reduced it at higher concns. Radiotracer expts. with [3H]pregnenolone or [3H]11-deoxycorticosterone as exogenous substrates revealed a 50% inhibition of the oxidative substrate metabolism at about 1 µM ketoconazole. These effects could also be observed with fluconazole but occurred at concns. approx. 2 orders of magnitude higher as compared to ketoconazole. Thus, fluconazole has a much higher selectivity for fungal cytochrome P 450 than ketoconazole. The order of sensitivity of the cytochrome P 450-dependent enzymes of rat adrenal steroidogenesis to ketoconazole was the 11 β /18-hydroxylase, the cholesterol side chain cleavage enzyme and the 21-hydroxylase with decreasing sensitivities.

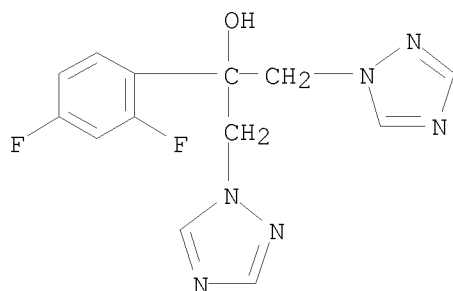
IT 86386-73-4, Fluconazole

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(steroid formation by adrenal cells response to)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3914 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1989:4343 Document No. 110:4343 Original Reference No. 110:807a,810a
Effects of antimycotic azoles on growth and sterol biosynthesis of
Leishmania promastigotes. Beach, David H.; Goad, L. John; Holz, George
G., Jr. (Health Sci. Cent., SUNY, Syracuse, NY, 13210, USA). Molecular
and Biochemical Parasitology, 31(2), 149-62 (English) 1988. CODEN:
MBIPDP. ISSN: 0166-6851.

AB Promastigotes of 36 World Health Organization reference (and other) strains of
6 species and 10 subspecies of Leishmania were cultured in the presence of
3 antimycotic azole drugs (ketoconazole, itraconazole, fluconazole) and
their population growth determined. A representative of each subspecies was
also analyzed for its sterol composition. For all strains the order of azole
drug activity with respect to both growth and sterol biosynthesis
inhibition was itraconazole \geq ketoconazole $>$ fluconazole. The
inhibitory actions of the 3 azole drugs were greater on *L. donovani* and *L.*
braziliensis subspecies and on *L. mexicana amazonensis* than on *L.*
aethiopica, *L. major*, *L. tropica*, and *L. mexicana mexicana*. The nature of
the changes in sterol composition caused by the drugs was the same for all
strains. The normal, major endogenous sterols of the promastigotes
(5-dehydroepisterol and ergosterol) were reduced in amount to 1-2% of the
total free sterols and were replaced by endogenous 14 α -Me sterols
and exogenous cholesterol. The changes occurred rapidly, were drug
concentration-dependent, and coincided with growth inhibition. Six strains of
those *Leishmania* species less sensitive to the azole drugs could be
subcultured indefinitely at reduced growth rates in the presence of a
ketoconazole concentration causing the same extraordinary alterations in sterol
composition. This suggested that the bulk membrane functions of sterols in
leishmanias can be served by 14 α -Me sterols and cholesterol, albeit
imperfectly, while traces of 14 α -demethyl sterols are needed for
uncharacterized metabolic functions.

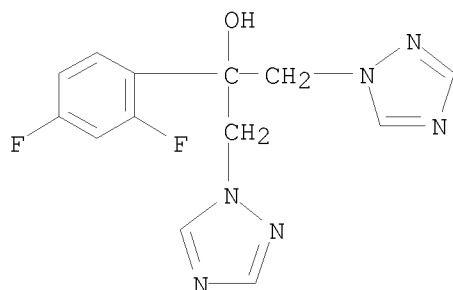
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(sterol formation and growth of Leishmania response to)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



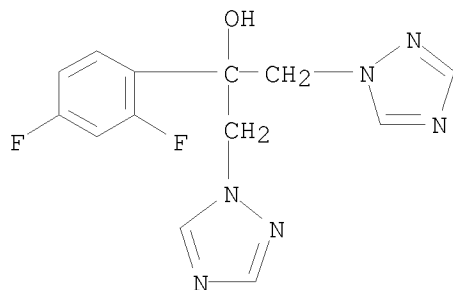
L3 ANSWER 3915 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1989:358 Document No. 110:358 Original Reference No. 110:55a,58a Effects of azole antifungals in vitro on host/parasite interactions relevant to candida infections. Odds, F. C.; Webster, C. E. (Dep. Microbiol., Univ. Leicester, Leicester, LE1 9HN, UK). Journal of Antimicrobial Chemotherapy, 22(4), 473-81 (English) 1988. CODEN: JACHDX. ISSN: 0305-7453.

AB Clotrimazole, fluconazole, itraconazole and ketoconazole were tested for their influence on three aspects of host-parasite interactions in the context of Candida infections. Clotrimazole, itraconazole or ketoconazole did not have any effect on the adherence of C. albicans to vaginal epithelial cells, in vitro, regardless of whether the drugs were used to pretreat the fungi or the vaginal cells or were added to the fungus-vaginal cell mixture Clotrimazole pretreatment of polymorphonuclear leukocytes led to a marked suppression of their ability to phagocytose and kill C. albicans, but fluconazole and ketoconazole had no similar effect. None of these three antifungals affected phagocytosis or killing when they were added to the leukocyte candida mixture or when used to pretreat the fungi. Clotrimazole and ketoconazole both reduced proliferative responses of lymphocyte suspensions to mitogens but fluconazole showed no anti-lymphocyte effect. This difference in action against lymphocytes may help to explain the known disparity between the antifungal effects of fluconazole and ketoconazole against C. albicans in vivo and against exptl. candida infections in vitro. Clotrimazole effected a suppression of ATP concns. in lymphocytes but fluconazole and ketoconazole had no similar effects.

IT 86386-73-4, Fluconazole
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (antifungal activity of, against Candida albicans, immunomodulating activity in, in human cells)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)

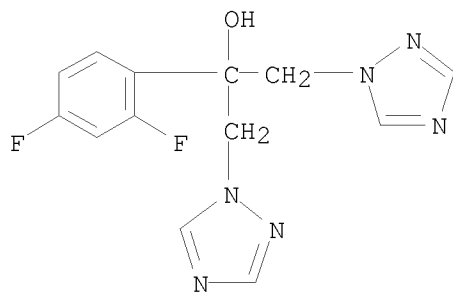


L3 ANSWER 3916 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1988:626454 Document No. 109:226454 Original Reference No. 109:37392h,37393a
 Binding of plasma proteins to Candida species in vitro. Page, S.; Odds,
 F. C. (Dep. Microbiol., Univ. Leicester, Leicester, LE1 7RH, UK). Journal
 of General Microbiology, 134(10), 2693-702 (English) 1988. CODEN: JGMIAN.
 ISSN: 0022-1287.

AB The ability of purified human albumin, fibrinogen, and transferrin to bind
 to Candida species was measured by immunofluorescence. The proteins all
 bound with high avidity to germ-tubes formed by *C. albicans*, but did not
 bind to blastospores of *C. albicans* or other pathogenic Candida species,
 not even to parent blastospores bearing germ-tubes. The extent of binding
 of the proteins to *C. albicans* germ-tubes varied between growth media and
 from germ-tube to germ-tube. Strains of *C. albicans* that did not form
 germ-tubes were incapable of binding any of the proteins. There was
 evidence that purified fibrinogen bound to germ-tubes with higher avidity
 than albumin and transferrin. When germ-tubes were treated with whole
 human plasma or serum, indirect immunofluorescence revealed that proteins
 were bound all over the surface of *C. albicans* blastospore-germ-tube
 units, indicating behavior different from that seen with the purified
 proteins tested alone or in mixts. *C. albicans* cells grown in the
 presence of azole antifungal agents bound purified plasma proteins in the
 same way as cells untreated with the drugs. Evidently, binding of host
 proteins to the surface of *C. albicans* may not be a property related
 directly to virulence of the fungus in vivo.

IT 86386-73-4, Fluconazole
 RL: BIOL (Biological study)
 (Candida albicans development response to, protein binding in relation
 to)

RN 86386-73-4 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-
 1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3917 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1988:604365 Document No. 109:204365 Original Reference No. 109:33614h,33615a
 Fluconazole penetration into cerebrospinal fluid in humans. Foulds,
 George; Brennan, Doreen R.; Wajszczuk, Charles; Catanzaro, Antonino; Garg,
 Dyal C.; Knopf, William; Rinaldi, Michael; Weidler, Donald J. (Cent. Res.
 Div., Pfizer Inc., Groton, CT, 06340, USA). Journal of Clinical
 Pharmacology, 28(4), 363-6 (English) 1988. CODEN: JCPCBR. ISSN:
 0091-2700.

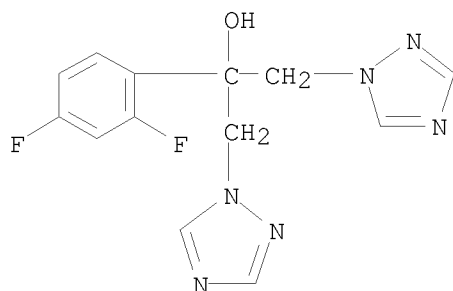
AB One hour after i.v. doses of 50 mg fluconazole/day for 6 days or 100
 mg/day for 7 days to healthy subjects, the cerebrospinal fluid concns. of
 fluconazole were 1.26 and 2.74 mg/L, resp. These values were approx. 52%
 and 62% those in serum. Patients with meningitis also had significant
 concns. of fluconazole in the cerebrospinal fluid.

IT 86386-73-4, Fluconazole
 RL: BIOL (Biological study)

(penetration of, into cerebrospinal fluid of humans)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3918 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1988:545733 Document No. 109:145733 Original Reference No. 109:24155a,24158a Improved method for azole antifungal susceptibility testing. Gordon, Morris A.; Lapa, Edward W.; Passero, Philip G. (Wadsworth Cent. Lab. Res., New York State Dep. Health, Albany, NY, 12201, USA). Journal of Clinical Microbiology, 26(9), 1874-7 (English) 1988. CODEN: JCMIDW. ISSN: 0095-1137.

AB A reproducible method is described for the determination of the MICs of ketoconazole, miconazole, fluconazole, and itraconazole with sharp endpoints when employed with either yeasts or molds. A semisolid medium is used with controlled pH and standardized inoculum. The time of reading results is a critical factor in the conduct of this test. The medium is simple to prepare and has a relatively long refrigerator shelf life in a user-ready state, requiring only the addition of a freshly prepared inoculum after restoration to room temperature

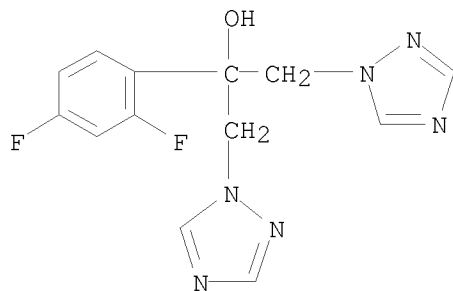
IT 86386-73-4, Fluconazole

RL: ANST (Analytical study)

(antifungal susceptibility testing of, improved method for)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3919 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1988:541965 Document No. 109:141965 Original Reference No. 109:23419a,23422a In vitro inhibition studies of tolbutamide hydroxylase activity of human liver microsomes by azoles, sulfonamides and quinolines. Back, D. J.; Tjia, J. F.; Karbwang, J.; Colbert, J. (Dep. Pharmacol. Ther., Univ. Liverpool, Liverpool, L69 3BX, UK). British Journal of Clinical Pharmacology, 26(1), 23-9 (English) 1988. CODEN: BCPHBM. ISSN:

0306-5251.

AB A number of compds. were examined for their ability to inhibit tolbutamide hydroxylase activity in human liver microsomes (control value at a substrate concentration of 150 μM being 0.27 nmol/min/mg protein). The IC₅₀ (concentration of inhibitor producing 50% inhibition) values were determined for a

range of sulfonamides, imidazoles, and aminoquinoline compds. The most potent inhibition was evident with the 1-substituted imidazole antimycotic drugs ketoconazole, clotrimazole, and miconazole and the sulfonamide sulfaphenazole (IC₅₀ values of 16.5, 2.5, 0.85, and 0.5 μM , resp.). A number of compds. showed little or no inhibition of tolbutamide hydroxylase as judged by an IC₅₀ of ≥ 500 μM . The K_m value for tolbutamide hydroxylase was 125 μM and the V_{max} was 0.44 nmol/min/mg. All the substituted imidazoles examined in kinetic studies produced either noncompetitive or mixed inhibition. The sulfonamides exhibited competitive inhibition, the K_i for sulfaphenazole being 0.22 μM . Primaquine showed mixed inhibition. Dixon plots confirmed the type of inhibition produced. Although the competitive inhibition between some sulfonamides and tolbutamide is consistent with metabolism by the same isoenzyme of cytochrome P 450, it does not prove it and further studies with purified enzymes will be necessary to confirm this.

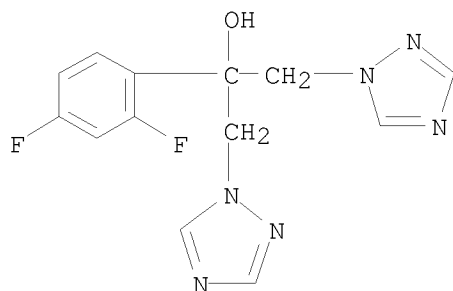
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(tolbutamide hydroxylase in human liver inhibition by)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3920 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1988:525695 Document No. 109:125695 Original Reference No. 109:20863a,20866a Inhibition of adherence of Candida albicans by conventional and experimental antifungal drugs. Vuddhakul, Varaporn; McCormack, Joseph G.; Seow, W. Kim; Smith, Susan E.; Thong, Y. H. (Dep. Child Health, Univ. Queensland, South Brisbane, 4101, Australia). Journal of Antimicrobial Chemotherapy, 21(6), 755-63 (English) 1988. CODEN: JACHDX. ISSN: 0305-7453.

AB The effects of antifungal drugs on adherence of C. albicans were tested in vitro. Significant reduction of adherence occurred after 2 h incubation with amphotericin B, nystatin, miconazole, econazole, ketoconazole, chlorhexidine and ICI 195,739. Significant inhibition of Candida adherence by 5-fluorocytosine and amorolfen required 18 h incubation. Combinations of amphotericin B with 5-fluorocytosine, miconazole, ICI 195,739 and amorolfen resulted in synergistic inhibition of adherence. Adherence is an important pathogenic mechanism in Candida infections and interference with this process may represent a major component of the mode of action of antifungal drugs.

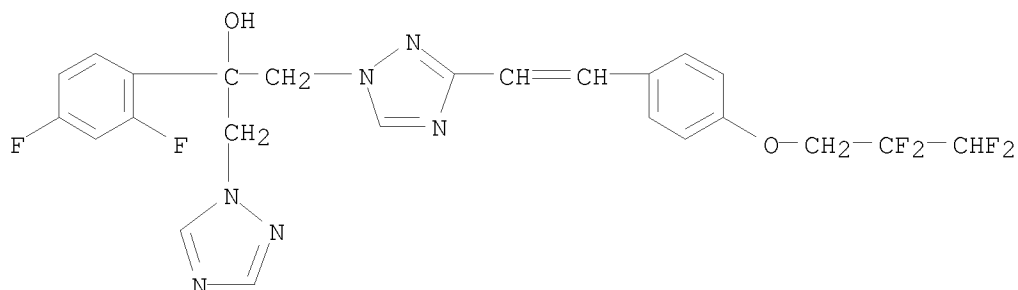
IT 103961-78-0

RL: BIOL (Biological study)

(adhesion of *Candida albicans* inhibition by)

RN 103961-78-0 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[2-[4-(2,2,3,3-tetrafluoropropoxy)phenyl]ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)-
(CA INDEX NAME)



L3 ANSWER 3921 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1988:447885 Document No. 109:47885 Original Reference No. 109:7907a,7910a
Fluconazole: a novel systemically active antifungal agent. Richardson, K.; Cooper, K.; Marriot, M. S.; Tarbit, M. H.; Troke, P. F.; Whittle, P. J. (Pfizer Ltd., Sandwich/Kent, CT13 9NJ, UK). Special Publication - Royal Society of Chemistry, 65(Top. Med. Chem.), 255-65 (English) 1988. CODEN: SROCD0. ISSN: 0260-6291.

AB Fluconazole has a broad activity as a systemic fungicide in humans and is useful in immunosuppressed patients.

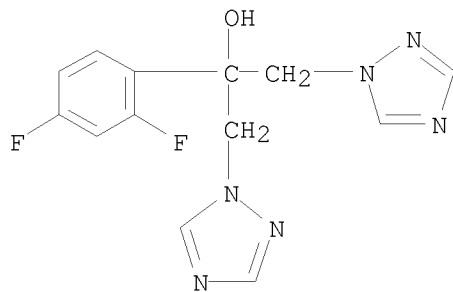
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(as systemic fungicide in human)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3922 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1988:431472 Document No. 109:31472 Original Reference No. 109:5189a,5192a
Determination of fluconazole in biological fluids by capillary column gas chromatography with a nitrogen detector. Debruyne, D.; Ryckelynck, J. P.; Bigot, M. C.; Moulin, M. (Lab. Pharmacol., Univ. Hosp. Cent., Caen, 14000, Fr.). Journal of Pharmaceutical Sciences, 77(6), 534-5 (English) 1988. CODEN: JPMSAE. ISSN: 0022-3549.

AB Fluconazole concns. in biol. fluids were determined by high performance gas chromatog. A simple extraction procedure with CHCl₃, under basic conditions and after the addition of UK-47,265 as the internal standard and with no evaporation

stage, was carried out prior to anal. A solid injector and a 15-m

capillary column, coated with a nonpolar phase and connected to a N-selective detector that afforded an excellent selectivity and sensitivity, constituted the gas chromatog. system. The duration of each anal. was <4 min and the min. detectable serum concentration was 50 ng/mL. In patients undergoing chronic peritoneal dialysis, the mean serum concns. at 1, 6, and 48 h after the i.p. administration of a single dose of fluconazole were, resp., 325, 928, and 607 ng/mL.

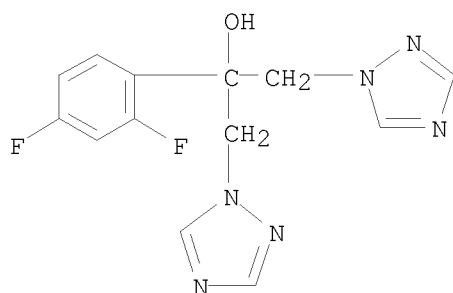
IT 86386-73-4, Fluconazole

RL: ANT (Analyte); ANST (Analytical study)

(determination of, in biol. fluids of humans, by gas chromatog.)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3923 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1988:400305 Document No. 109:305 Original Reference No. 109:47a,50a
Fluconazole and testosterone: in vivo and in vitro studies. Hanger, D. P.; Jevons, S.; Shaw, J. T. B. (Pfizer Cent. Res., Sandwich/Kent, CT13 9NJ, UK). Antimicrobial Agents and Chemotherapy, 32(5), 646-8 (English) 1988. CODEN: AMACCQ. ISSN: 0066-4804.

AB Fluconazole (UK-49,858), a novel bis-triazole antifungal agent, was given orally to groups of 10 male volunteers at 25 and 50 mg/day for 28 days. Blood samples for testosterone estimation were taken from these and from a placebo group at several time points on days 1, 14, and 28 of the study, and the assay results demonstrated that the compound had no significant effect on circulating testosterone levels. Similarly, in studies with rat Leydig cells in vitro, fluconazole at concns. up to 10 μ g/mL was found to be only a weak inhibitor of testosterone production, whereas ketoconazole caused more than 50% inhibition at 0.1 μ g/mL. It is concluded that fluconazole, in contrast to ketoconazole, has little effect on the biosynthesis of testosterone by mammalian cells.

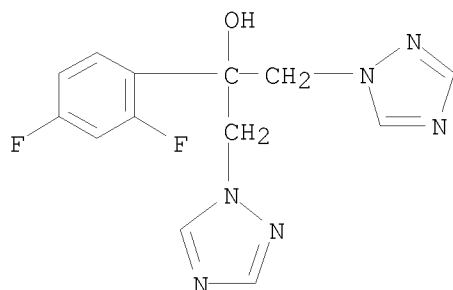
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(blood testosterone in humans and testosterone formation by Leydig cells response to)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



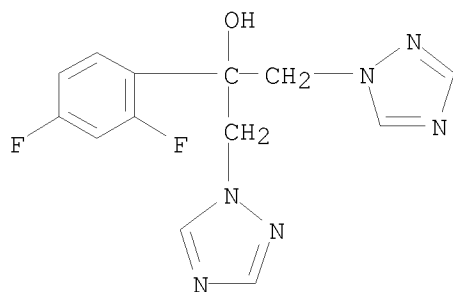
L3 ANSWER 3924 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1988:179668 Document No. 108:179668 Original Reference No. 108:29321a,29324a
 In vitro effects of fluconazole (UK-49,858) and ketoconazole on mouse lymphocyte proliferation and on Candida blastospore destruction by human polymorphonuclear leukocytes. Senior, D. S.; Shaw, J. T. B. (Pfizer Cent. Res., Pfizer Ltd., Sandwich/Kent, CT13 9NJ, UK). International Journal of Immunopharmacology, 10(2), 169-73 (English) 1988. CODEN: IJIMDS. ISSN: 0192-0561.

AB Fluconazole had little or no effect on Con A- or lipopolysaccharide-induced lymphocyte proliferation at concns. at which ketoconazole caused marked inhibition of the response to both these mitogens. Similarly, fungal (C. albicans) cell killing by polymorphonuclear leukocytes was substantially depressed by ketoconazole but was unaffected by fluconazole. Thus, fluconazole, unlike ketoconazole, has no inhibitory effect in 2 in vitro assays of immune function.

IT 86386-73-4, Fluconazole
 RL: BIOL (Biological study)
 (immunosuppression by)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3925 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1988:145709 Document No. 108:145709 Original Reference No. 108:23823a,23826a
 Interaction of azole derivatives with cytochrome P-450 isozymes in yeast, fungi, plants and mammalian cells. Vanden Bossche, Hugo; Marichal, Patrick; Gorrens, Jos; Bellens, Danny; Verhoeven, Hugo; Coene, Marie Claire; Lauwers, William; Janssen, Paul A. J. (Dep. Life Sci., Janssen Pharm. Res. Lab., Beerse, B-2340, Belg.). Pesticide Science, 21(4), 289-306 (English) 1987. CODEN: PSSCBG. ISSN: 0031-613X.

AB Yeast and plant membranes contain rather small amts. of cytochrome P 450 compared with membrane fractions prepared from bovine adrenal cortex, piglet testis, and rabbit liver. The agricultural fungicides azaconazole, penconazole, propiconazole, and imazalil showed a much greater affinity

for microsomal cytochrome P 450 isoenzymes of *Saccharomyces cerevisiae* and *Candida albicans* than for cytochrome P 450 in microsomal fractions prepared from Jerusalem artichoke tubers, maize shoots, pea seedlings, or tulip bulbs and for cytochrome P 450 isoenzymes in mitochondrial or microsomal fractions from rabbit liver, piglet testis, and bovine adrenals. The medicinal azole antifungals miconazole, clotrimazole, ketoconazole, fluconazole, and itraconazole also interacted at much lower concns. with the microsomal cytochrome P 450 isoenzymes from *S. cerevisiae* and *C. albicans* than with those in mammalian membranes. Itraconazole showed the highest selectivity; bifonazole was much less selective. The microsomal fraction prepared from *C. albicans* contained cytochrome P 450 isoenzymes with a lower affinity than the microsomal fractions from other isolates for miconazole, ketoconazole, fluconazole, and itraconazole. However, itraconazole showed still high affinity for these cytochrome P 450 isoenzymes. In animal models this *C. albicans* isolate was less pathogenic and was less sensitive to azole antifungals both in vitro and in vivo. Azole antifungals inhibited ergosterol synthesis at nanomolar concns. whereas almost micromolar concns. were needed to obtain a similar inhibition of cholesterol or phytosterol synthesis. This inhibition coincided with the accumulation of 14 α -methylsterols such as 14-methylfecosterol, 14-methyl-24-methylene-ergosterol, 14-methyl-ergosta-8,24(28)-dien-3 β ,6 α -diol, obtusifoliol, lanosterol, and 24-methylenedihydrolanosterol. It is speculated that by making the 14 α -methylsterols less lipophilic the cells are trying to eliminate these membrane-disturbing compds. This suggests that the azole-induced ergosterol depletion might represent a greater contribution to their fungicidal activity than the accumulation of 14 α -methylsterols.

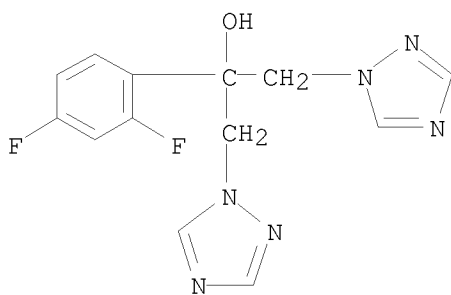
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(cytochrome P 450 of yeast and plants and mammals interaction with)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3926 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1988:106010 Document No. 108:106010 Original Reference No. 108:17207a,17210a Activities of fluconazole (UK 49,858) and ketoconazole against ketoconazole-susceptible and -resistant *Candida albicans*. Hughes, Carolyn E.; Bennett, Renee L.; Tuna, Ishik C.; Beggs, William H. (Med. Serv., Veterans Adm. Med. Cent., Minneapolis, MN, 55417, USA). Antimicrobial Agents and Chemotherapy, 32(2), 209-12 (English) 1988. CODEN: AMACCQ. ISSN: 0066-4804.

AB The activities of fluconazole and ketoconazole against ketoconazole-susceptible and -resistant strains of *C. albicans* were compared in a neutropenic-site rabbit model. Oral treatment with fluconazole resulted in much higher serum and extravascular concns. of this antifungal agent than did comparable doses of ketoconazole.

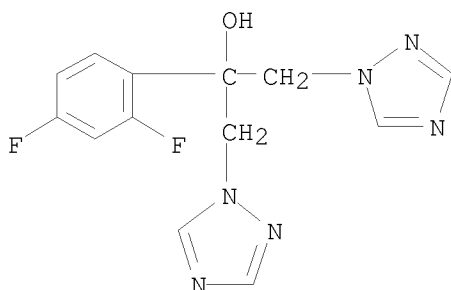
Fluconazole had no addnl. in vivo activity against the ketoconazole-susceptible strains; no fungicidal activity against the ketoconazole-resistant strains was observed with fluconazole treatment (80 mg/kg), but not with less fluconazole (20 mg/kg) or with ketoconazole (.apprx.67 mg/kg). In vitro susceptibility tests separated the ketoconazole-susceptible strains from the ketoconazole-resistant strains, but the results were variable when the resistant strains were tested with fluconazole.

IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)
(Candida albicans infection inhibition by)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3927 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1988:87654 Document No. 108:87654 Original Reference No. 108:14279a,14282a
Comparison of two azole antifungal drugs, ketoconazole and fluconazole, as modifiers of rat hepatic monooxygenase activity. Houston, J. Brian; Humphrey, Michael J.; Matthew, Diana E.; Tarbit, Michael H. (Dep. Pharm., Univ. Manchester, Manchester, M13 9PL, UK). Biochemical Pharmacology, 37(3), 401-8 (English) 1988. CODEN: BCPCA6. ISSN: 0006-2952.

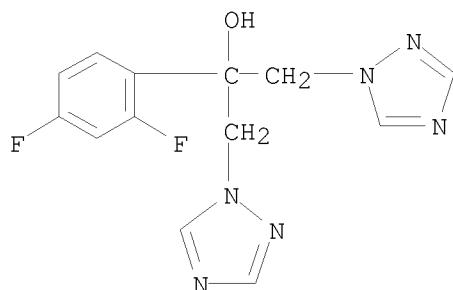
AB The mechanism of action of azole antifungal agents is believed to involve inhibition of fungal cytochrome P 450, and, therefore, an investigation of the interaction of these drugs with mammalian cytochrome P 450 systems should provide some indication of their selectivity as antifungal agents. The ability of ketoconazole and fluconazole, the latter representing a new generation of triazole antifungal agents, to modify rat mixed function oxidase activity has been investigated in vitro with hepatic microsomes and in vivo using a N-methyl-[14C] antipyrine breath test. Fluconazole has a lower propensity to interact with rat hepatic cytochrome P 450 and can be considered a more selective antifungal agent as its in vivo antifungal potency is an order of magnitude greater than ketoconazole.

IT 86386-73-4, Fluconazole

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(mixed-function oxidase of liver response to)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



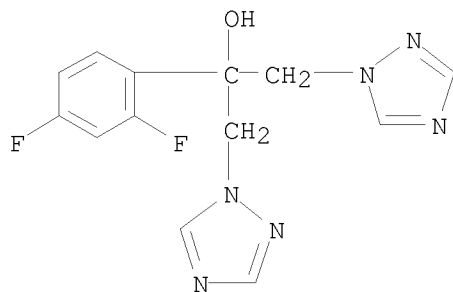
L3 ANSWER 3928 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1988:68103 Document No. 108:68103 Original Reference No. 108:11115a,11118a
 Azole antifungal agents: emphasis on new triazoles. Saag, Michael S.;
 Dismukes, William E. (Sch. Med., Univ. Alabama, Birmingham, AL, 35294,
 USA). Antimicrobial Agents and Chemotherapy, 32(1), 1-8 (English) 1988.
 CODEN: AMACCQ. ISSN: 0066-4804.

AB A review with 63 refs. on triazole fungicides. A general discussion of
 their structure, mechanism of action, and in vitro activity is followed by
 detailed pharmacol. of itraconazole and fluconazole.

IT 86386-73-4, Fluconazole
 RL: BIOL (Biological study)
 (as antifungal drug)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-
 1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



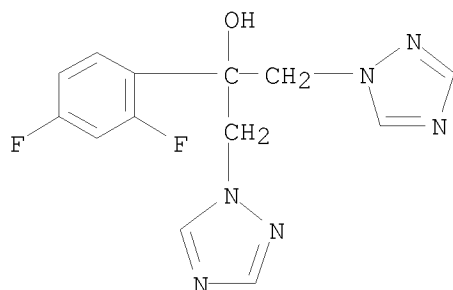
L3 ANSWER 3929 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1988:48777 Document No. 108:48777 Original Reference No. 108:7961a,7964a
 Comparison of fluconazole and amphotericin B in treating histoplasmosis in
 immunosuppressed mice. Kobayashi, G. S.; Travis, S. J.; Medoff, G. (Sch.
 Med., Washington Univ., St. Louis, MO, 63110, USA). Antimicrobial Agents
 and Chemotherapy, 31(12), 2005-6 (English) 1987. CODEN: AMACCQ. ISSN:
 0066-4804.

AB Fluconazole (UK-49,858) was compared with amphotericin B in treating
 histoplasmosis in mice immunosuppressed with either cyclophosphamide or
 cortisone. Both drugs protected animals from a lethal challenge with
 Histoplasma capsulatum, but neither regimen resulted in cures.

IT 86386-73-4, UK-49858
 RL: BIOL (Biological study)
 (histoplasmosis chemotherapy with)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-
 1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



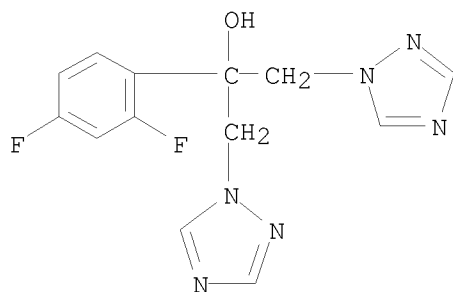
L3 ANSWER 3930 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1988:31381 Document No. 108:31381 Original Reference No. 108:5113a Toxicity of the intravitreal injection of fluconazole in the rabbit. Schulman, Joel A.; Peyman, Gholam; Fiscella, Richard; Small, Gregg; Coats, Marion; Wajszczuk, Charles P.; Steahly, Lance (Med. Branch Galveston, Univ. Texas, Galveston, TX, USA). Canadian Journal of Ophthalmology, 22(6), 304-6 (English) 1987. CODEN: CAJOBA. ISSN: 0008-4182.

AB To determine fluconazole (I) potential for treatment of exogenous fungal endophthalmitis, healthy rabbits were given intravitreal injections of up to 100 µg I in 0.1 mL of the solution All eyes underwent biomicroscopy, ophthalmoscopy, and electroretinog. before and after the treatment. No evidence of toxic intraocular effects was detected with these techniques or on light microscopy, performed 8 days after the treatment. The results suggest that I has potential application in the treatment of exogenous fungal endophthalmitis.

IT 86386-73-4, Fluconazole
 RL: PRP (Properties)
 (toxicity of, to eye)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3931 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1988:15837 Document No. 108:15837 Original Reference No. 108:2557a,2560a Combination therapy of experimental candidiasis, cryptococcosis, aspergillosis and wangielliosis in mice. Polak, Annemarie (Dep. Pharm. Res., F. Hoffmann-La Roche, Basel, CH-4002, Switz.). Chemotherapy (Basel, Switzerland), 33(5), 381-95 (English) 1987. CODEN: CHTHBK. ISSN: 0009-3157.

AB Combination pairs of 5-fluorocytosine (5-FC) + itraconazole (Itra), 5-FC + fluconazole (Fluc), and amphotericin B (Amph B) + Itra were administered to mice with exptl. candidiasis, cryptococcosis, aspergillosis and wangielliosis with a variety of combination ratios. The life-prolonging effect of the combinations was compared with the effect of each partner

administered alone and with a double dosage. Using the U test of Mann and Whitney, the effects of the concentration were classified as synergistic, additive, indifferent or antagonistic; the degree of the interaction was compared with the known effect of Amph B and 5-FC combinations. The combination 5-FC + Itra was definitely synergistic or additive in candidiasis and aspergillosis. The most pronounced synergism occurred in the infection with a 5-FC-resistant strain of *Candida albicans*. The degree of synergism was the same as with 5-FC + Amph B. In cryptococcosis this combination was indifferent. The combination of 5-FC + Itra merits clin. investigation, especially in candidiasis and aspergillosis. Amph B +

Itra

was mostly indifferent and weakly antagonistic; the degree of antagonism was significantly weaker than the one observed with Amph B + ketoconazole. In candidiasis, 5-FC + Fluc was synergistic, but indifferent in cryptococcosis and aspergillosis.

IT

86386-73-4, Fluconazole

RL: BIOL (Biological study)

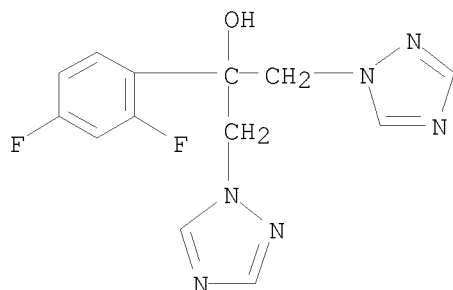
(aspergillosis and candidiasis and cryptococcosis and wangiellois therapy with fluorocytosine combined with)

RN

86386-73-4 CAPLUS

CN

1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3932 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1988:4771 Document No. 108:4771 Original Reference No. 108:915a,918a The determination of fluconazole in rodent diet using solid-phase extraction and high-performance liquid chromatography. Berridge, John C.; Broad, Linda A. (Anal. Chem. Dep., Pfizer Cent. Res., Sandwich/Kent, CT13 9NJ, UK). Journal of Pharmaceutical and Biomedical Analysis, 5(5), 523-6 (English) 1987. CODEN: JPBADA. ISSN: 0731-7085.

AB

Fluconazole was determined in rodent feed by HPLC on a 10 cm + 2.1 mm stainless steel column packed with Hypersil MOS, MeOH-H₂O (80:20) as mobile phase, and UV detection. Samples were first extracted with methylene chloride then applied to a disposable precolumn packed with cyanopropyl silica. Average recoveries from spiked samples (4-1000 mg/kg fluconazole) were 95.8%, with no dependence on concentration

IT

86386-73-4, Fluconazole

RL: ANT (Analyte); ANST (Analytical study)

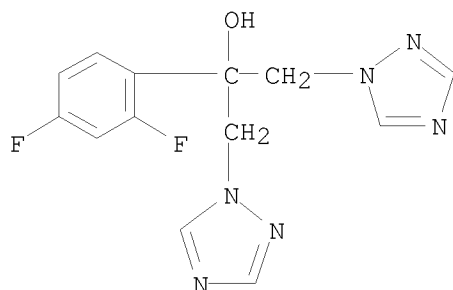
(determination of, in rodent feed, by HPLC)

RN

86386-73-4 CAPLUS

CN

1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



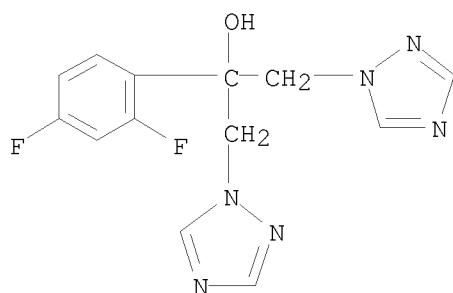
L3 ANSWER 3933 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1987:572298 Document No. 107:172298 Original Reference No. 107:27591a,27594a
 In vitro antileishmanial activity of inhibitors of steroid biosynthesis and combinations of antileishmanial agents. Berman, Jonathan D.; Gallalee, James V. (Div. Exp. Therapeutics, Walter Reed Army Inst. Res., Washington, DC, 20307-5100, USA). Journal of Parasitology, 73(3), 671-3 (English) 1987. CODEN: JOPAA2. ISSN: 0022-3395.

AB Six clin. steroidal inhibitors were tested in vitro for their activity against Leishmania major. Combinations of Pentostam with ketoconazole or allopurinol ribonucleosides were also evaluated. Expts. were carried out using human monocyte-derived macrophages infected with L. major (WR 401). The major conclusions are: (1) ketoconazole is more active than certain new triazole antimycotics against L. major amastigotes in human macrophages in vitro; (2) allylamines have activity comparable to ketoconazole in this model; (3) combinations of ketoconazole or allopurinol ribonucleoside with Pentastam are not generally more active than Pentostam alone on a parasitol. basis in this model.

IT 86386-73-4, Fluconazole
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (antileishmanial activity of)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3934 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1987:551062 Document No. 107:151062 Original Reference No. 107:24249a,24252a
 Inhibitory effect of antifungal agents on germ tube formation in Candida albicans. Schaudt, M.; Ackerbauer, H.; Mieth, H. (Sandoz Forschungsinst., Vienna, A-1235, Austria). Mykosen, 30(6), 281-7 (English) 1987. CODEN: MYKSAW. ISSN: 0027-5557.

AB The allylamine derivs. naftifine and terbinafine were compared in vitro with 15 standard antifungals in terms of their inhibitory effects on the yeast-mycelial (Y-M) transformation in tests with 19 C. albicans isolates.

Y-M transformation minimal inhibitory concentration (MICs) were determined in a microtiter-broth-dilution test using a chemical defined medium with N-acetylglucosamine as inducer of hyphal growth. Clotrimazole was the most potent inhibitor with a geometric mean MIC (G-MIC) value of 0.00038 $\mu\text{g mL}^{-1}$ followed by ketoconazole (G-MIC, 0.012 $\mu\text{g mL}^{-1}$) and itraconazole (G-MIC, 0.027 $\mu\text{g mL}^{-1}$) in that order. G-MIC values ranging from 0.027-0.037 $\mu\text{g mL}^{-1}$ have been determined for intraconazole, econazole, amorolfine (RO 14-4767/002), miconazole and 5-fluorocytosine. Among the orally active azole derivs. fluconazole was the least active (G-MIC, 0.14 $\mu\text{g mL}^{-1}$). Noteworthy activity included that of the allylamine terbinafine which was similar to that of bifonazole (G-MIC 0.23-0.26 $\mu\text{g mL}^{-1}$). There was a statistically significant higher susceptibility of the test strains with terbinafine than with amphotericin B. Naftifine and amphotericin B were comparable active in terms of G-MIC values (0.52-0.7 $\mu\text{g mL}^{-1}$). Significantly higher drug concns. (>1 $\mu\text{g mL}^{-1}$) were necessary to inhibit filamentation of *C. albicans* with ciclopiroxolamine, nystatin, griseofulvin and tolclate. Tolnaftate was the least active drug tested with a G-MIC of 74.7 $\mu\text{g mL}^{-1}$.

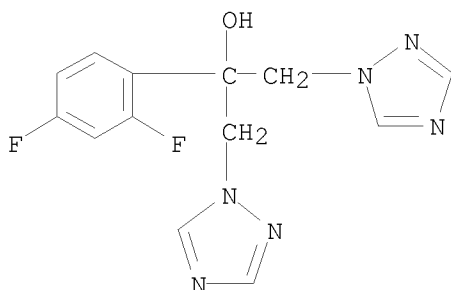
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(germ tube formation inhibition by, in *Candida albicans*)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3935 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:546877 Document No. 107:146877 Original Reference No. 107:23477a,23480a Effects of antifungal agents and γ interferon on macrophage cytotoxicity for fungi and tumor cells. Perfect, John R.; Granger, Donald L.; Durack, David T. (Med. Cent., Duke Univ., Durham, NC, 27710, USA). Journal of Infectious Diseases, 156(2), 316-23 (English) 1987. CODEN: JIDIAQ. ISSN: 0022-1899.

AB The importance of the activation state of murine macrophages for both fungistatic and fungicidal activity is demonstrated. Host factors such as γ -interferon and microbial products such as endotoxin can interact synergistically to initiate this cytotoxicity. Both a Me ester derivative of amphotericin B and liposomal amphotericin B potentiated macrophage activation but were less potent than amphotericin B. Other antifungal agents such as azole compds. and flucytosine did not possess this ability to interact with the intrinsic macrophage effector mechanisms. However, ketoconazole and itraconazole were avidly bound to macrophages. The azole-loading of macrophages may be a factor in macrophage cytotoxicity for fungi.

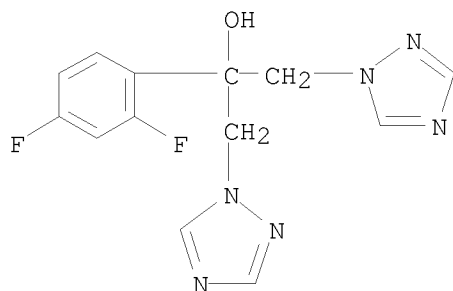
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(macrophage cytotoxicity to fungi and tumor cell response to γ -interferon and)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



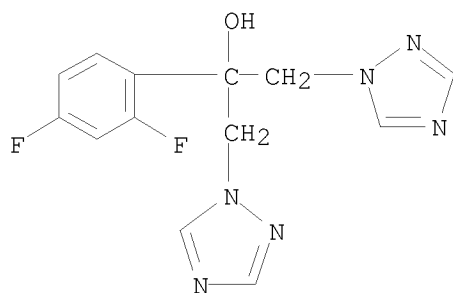
L3 ANSWER 3936 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
1987:526563 Document No. 107:126563 Original Reference No. 107:20295a,20298a
Effects of bifonazole, fluconazole, itraconazole, and terbinafine on the chemiluminescence response of immune cells. Abruzzo, George K.; Fromtling, Robert A.; Turnbull, Tracy A.; Giltinan, David M. (Dep. Basic Microbiol., Merck Inst. Ther. Res., Rahway, NJ, 07065, USA). Journal of Antimicrobial Chemotherapy, 20(1), 61-8 (English) 1987. CODEN: JACHDX. ISSN: 0305-7453.

AB The luminol-enhanced chemiluminescence (CL) assay was used to examine the effects of four antifungal agents, bifonazole, fluconazole (UK-49,858), itraconazole, and terbinafine on the chemiluminescence response of mouse spleen cells. Both bifonazole and itraconazole caused significant reduction in peak CL intensity only at the highest level assayed (20 mg/L). Fluconazole had no significant effect on the CL response of mouse spleen cells at levels up to 20 mg/L inclusive. Although terbinafine had no significant effect on peak CL intensity, it did cause a significant decrease in time to peak response at levels above 5 mg/L. This decrease in time to peak response may be indicative of an enhancement in the immune capacity of the mouse spleen cells; the clin. significance of this observation remains to be determined

IT 86386-73-4, Fluconazole
RL: BIOL (Biological study)
(metabolic and phagocytic function of spleen immune cells response to, chemiluminescence study of)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3937 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
1987:470328 Document No. 107:70328 Original Reference No. 107:11445a,11448a
Efficacy of fluconazole (UK-49,858) against experimental aspergillosis and

cryptococcosis in mice. Troke, Peter F.; Andrews, Richard J.; Marriott, Michael S.; Richardson, Kenneth (Pfizer Cent. Res., Sandwich/Kent, UK). Journal of Antimicrobial Chemotherapy, 19(5), 663-70 (English) 1987. CODEN: JACHDX. ISSN: 0305-7453.

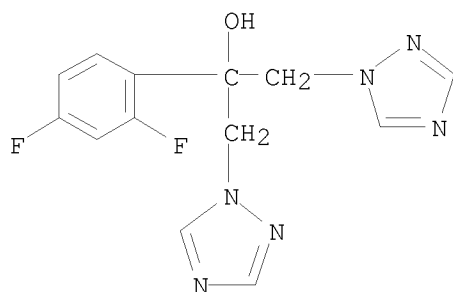
AB The efficacy of fluconazole, a new bis-triazole antifungal agent, was compared with that of orally administered ketoconazole and parenterally administered amphotericin B against *Aspergillus* and *Cryptococcus* infections in mice. Fluconazole was 5-20 fold more active than ketoconazole against systemic aspergillosis and against systemic, intracranial, and pulmonary cryptococcosis but was less active than amphotericin B.

IT 86386-73-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(fungicidal activity of)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3938 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:470304 Document No. 107:70304 Original Reference No. 107:11441a,11444a Fungistatic and fungicidal effects of amphotericin B, ketoconazole and fluconazole (UK 49,858) against *Histoplasma capsulatum* in vitro and in vivo. Polak, Annemarie; Dixon, Dennis M. (Pharm. Res. Div., F. Hoffmann-La Roche and Co. Ltd., Basel, CH-4002, Switz.). Mykosen, 30(4), 186-94 (English) 1987. CODEN: MYKSAW. ISSN: 0027-5557.

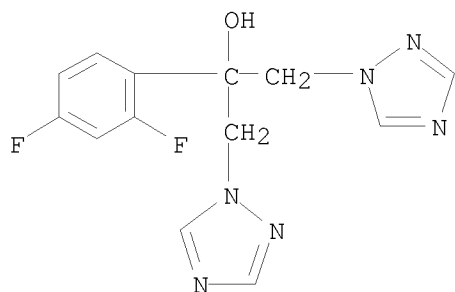
AB Amphotericin B (Amph B), ketoconazole (KTZ), and fluconazole (FLZ) were compared for activity against yeast phase *H. capsulatum* in vitro and in mice. A quant. spleen culture technique for yeast phase colony forming units (CFU) was used to evaluate the antifungal effects of these 3 drugs in vivo. In contrast to the in vitro indications, all 3 drugs showed fungicidal activity as demonstrated by the exponential decreases in CFU from spleens of infected mice. When relating the fungicidal activity obtained by this technique to the ED₅₀ or ED₁₀₀ values, KTZ and FTZ appeared to be the most active drugs. Fluconazole compared favorably to KTZ. At twice the ED₁₀₀, Amph B had no significant effect upon viable yeasts recovered until after day 3 or infection. Thereafter, the drug was fungicidal. Based upon these studies. FLZ would appear to hold promise in the clin. management of histoplasmosis.

IT 86386-73-4, UK 49858

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antifungal activity of, against *Histoplasma capsulatum*)

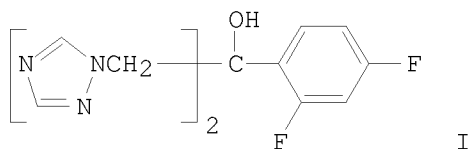
RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3939 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1987:439829 Document No. 107:39829 Original Reference No. 107:6667a,6670a
 Process for the preparation of α -(2,4-difluorophenyl)- α -(1H-1,3,4-triazol-1-ylmethyl)-1H-1,2,4-triazole-1-ethanol. Tremul Lozano, Jesus (Lazlo Internacional S. A., Spain). Span. ES 549684 A1 19860416, 6 pp. (Spanish). CODEN: SPXXAD. APPLICATION: ES 1985-549684 19851206.

GI



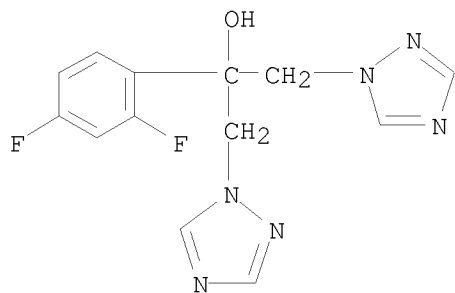
AB The antifungal title compound I (i.e. fluconazole) is prepared by Grignard reaction of an ester of 2,4-F₂C₆H₃CO₂H with excess 1,2,4,-triazol-2-ylmethylmagnesium bromide. A solution of 32.4 g 1-(bromomethyl)-1,2,4-triazole in Et₂O was added dropwise to 4.9 g Mg in Et₂O, and the mixture was refluxed, cooled, and treated with 18.6 g 2,4-F₂C₆H₃CO₂Et in Et₂O. Acidic workup and extraction gave 26 g I.

IT 86386-73-4P, Fluconazole

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, by Grignard reaction of (bromomethyl)triazole with difluorobenzoate)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3940 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1987:420605 Document No. 107:20605 Original Reference No. 107:3435a,3438a

The lipid composition and permeability to azole of an azole- and polyene-resistant mutant of *Candida albicans*. Hitchcock, C. A.; Barrett-Bee, K. J.; Russell, N. J. (Dep. Biochem., Univ. Coll., Cardiff, CF1 1XL, UK). *Journal of Medical and Veterinary Mycology*, 25(1), 29-37 (English) 1987. CODEN: JMVME0. ISSN: 0268-1218.

AB *C. albicans* 6.4, which is resistant to both polyene and azole groups of antifungal antibiotics, has a larger lipid content and lower polar lipid to neutral lipid ratio than other strains that are sensitive or resistant only to azoles. *C. albicans* 6.4 contains a relatively greater proportion of triacylglycerol in its neutral lipid in the exponential phase of batch culture compared with other strains, but, unlike them, does not accumulate triacylglycerols or any other stored lipid in the stationary phase. Like other strains, in *C. albicans* 6.4 the major phospholipids are phosphatidylcholine, phosphatidylethanolamine, and phosphatidylinositol, but sphingomyelin is absent; the major fatty acids are palmitic, palmitoleic, oleic, and linoleic acids. In common with other *C. albicans* strains, strain 6.4 contains non-specific (lyso)phospholipase activity. The main distinctive feature of the lipid composition of *C. albicans* 6.4 is the absence of ergosterol, which is replaced by methylated sterols, mainly lanosterol, 24-methylene-24,25-dihydrolanosterol and 4-methylergostadiene-3-ol. It is suggested that the altered membrane sterol pattern provides a common basis for the double resistance by preventing polyene binding and reducing azole permeability.

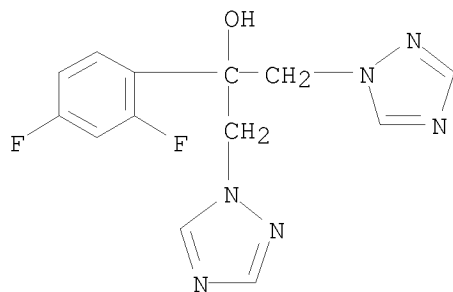
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(resistance to, of *Candida albicans*, lipid composition in relation to)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3941 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:192626 Document No. 106:192626 Original Reference No. 106:31165a,31168a Selective inhibitory action of fluconazole, an antifungal agent of triazole-derivative, on sterol 14-C demethylation of *Candida albicans* cells. Morita, Tatsuya; Nozawa, Yoshinori (Sch. Med., Gifu Univ., Gifu, 500, Japan). *Shinkin to Shinkinsho*, 27(3), 190-7 (Japanese) 1986. CODEN: SHSHBL. ISSN: 0583-0516.

AB The effects of fluconazole, a bis-triazole-containing antifungal agent, on sterol 14-C demethylation were investigated for the whole cell and the cell-free system of *C. albicans* and also for the rat liver cell free system. In the cell-free system, sterol 14-C demethylation was much more sensitive to fluconazole with *C. albicans* than with rat liver. Furthermore, the difference in binding affinity of fluconazole to cytochrome P-450s of *C. albicans* and rat liver was correlated with a great inhibition by fluconazole for ergosterol biosynthesis in *C. albicans* as compared with cholesterol biosynthesis in rat liver.

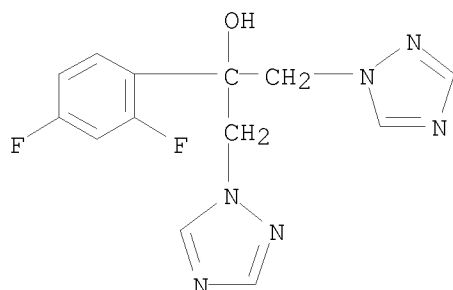
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(sterol demethylation by *Candida albicans* and rat liver cell-free system inhibition by)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3942 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:172797 Document No. 106:172797 Original Reference No. 106:27989a,27992a
Action of fluconazole (UK-49,858) in relation to other systemic antifungal azoles. Hughes, Carolyn E.; Beggs, William H. (Infect. Dis. Sect., Med. Serv., Minneapolis, MN, 55417, USA). Journal of Antimicrobial Chemotherapy, 19(2), 171-4 (English) 1987. CODEN: JACHDX. ISSN: 0305-7453.

AB Viability studies showed that fluconazole (UK-49,858) was strictly fungistatic in its activity against three strains of *Candida* species, whether tested against yeasts in stationary or early logarithmic phase. In this regard, fluconazole appears to offer no advantage over three other oral azole-containing agents, including ketoconazole, vibunazole (Bay n 7133), and ICI 153,066.

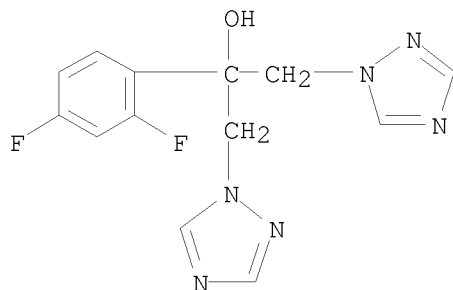
IT 86386-73-4, Fluconazole

RL: PROC (Process)

(antifungal action of, in *Candida albicans* and *C. parapsilosis*)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3943 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:149008 Document No. 106:149008 Original Reference No. 106:24133a,24136a
In vitro and in vivo drug studies with three agents of central nervous system pheohyphomycosis. Dixon, Dennis M.; Polak, Annemarie (Dep. Biol., Loyola Coll., Baltimore, MD, USA). Chemotherapy (Basel, Switzerland), 33(2), 129-40 (English) 1987. CODEN: CHTHBK. ISSN: 0009-3157.

AB Amphotericin B (Amph B) [1397-89-3], 5-fluorocytosine (5-FC)

[2022-85-7], ketoconazole (KTZ) [65277-42-1], fluconazole (FLZ) [

86386-73-4], amorolfine (AMOR) [78613-35-1] and terbinafine (TER) [91161-71-6] were tested against 3 agents of central nervous system pheohyphomycosis in vitro and in life-threatening infections in mice. The fungi studied were *Cladosporium bantianum*, *Dactylaria constricta* and *Wangiella dermatitidis*. The broadest protection against this group of fungi in mice was offered by 5-FC, followed by Amph B and FLZ, then KTZ. AMOR and TER were inactive in vivo. The results of in vitro susceptibility testing had no predictive value. In contrast, the data obtained from the mouse models should be useful clin.

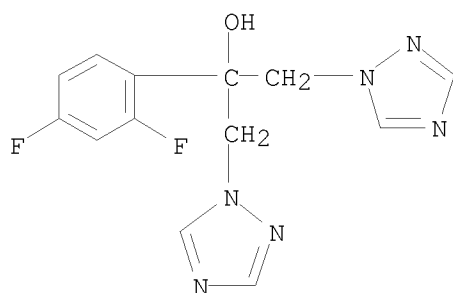
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(pheohyphomycosis of central nervous system treatment with, mouse model for evaluation of)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3944 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:113172 Document No. 106:113172 Original Reference No. 106:18341a,18344a Penetration of new azole compounds into the eye and efficacy in experimental *Candida* endophthalmitis. Savani, Dora V.; Perfect, John R.; Cobo, L. Michael; Durack, David T. (Med. Cent., Duke Univ., Durham, NC, 27710, USA). *Antimicrobial Agents and Chemotherapy*, 31(1), 6-10 (English) 1987. CODEN: AMACQ. ISSN: 0066-4804.

AB The penetration of 3 azole compds., ketoconazole [65277-42-1], itraconazole [84625-61-6], and fluconazole [86386-73-4], into the ocular tissues and fluids of rabbits was examined in the presence and absence of ocular inflammation. Drug concns. were compared with those found in serum and cerebrospinal fluid. The rank order of penetration into eye tissue was fluconazole > ketoconazole > itraconazole. Fluconazole penetrated freely into both inflamed and uninflamed eyes. The presence of inflammation improved penetration of all 3 compds. into ocular fluids and tissues. Penetration of these azoles into the anterior chamber of uninflamed eyes and into the cerebrospinal fluid was similar. All three azole compds. reduced the number of yeasts found in the eye in hematogenous *C. albicans* endophthalmitis in rabbits when therapy was initiated within 24 h of inoculation. However, only ketoconazole significantly reduced yeast counts in the eye when therapy was postponed for 7 days.

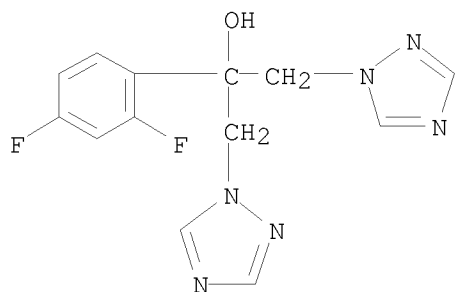
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(penetration of, into eye, *Candida* endophthalmitis treatment in relation to)

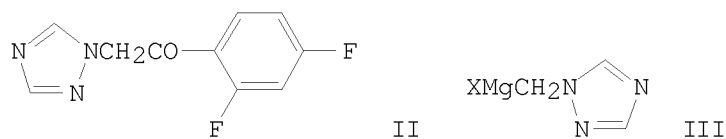
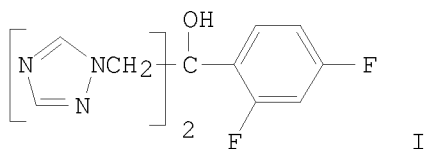
RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3945 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1987:67326 Document No. 106:67326 Original Reference No. 106:11075a,11078a
 Process for preparing 2-(2,4-difluorophenyl)-1,3-bis(1H-1,2,4-triazol-1-yl)propan-2-ol. Montserrat Faba, Eusebio (Inke S. A., Spain). Span. ES 549022 A1 19860301, 8 pp. (Spanish). CODEN: SPXXAD. APPLICATION: ES 1985-549022 19851119.

GI



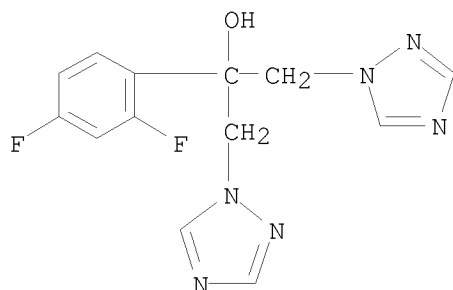
AB The antifungal title compound (I) is prepared by reaction of difluoro(triazolyl)acetophenone II with (triazolylmethyl)magnesium halides III (X = Cl, Br, iodo). Thus, III (X = Cl) was prepared from the corresponding chloride and Mg in THF, and was added to II in THF to give 55% I.

IT 86386-73-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, by Grignard reaction of (halomethyl)triazoles with difluoro(triazolyl)acetophenone)

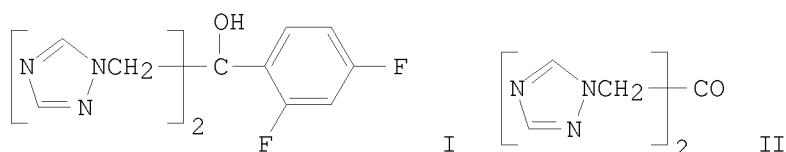
RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3946 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1987:67325 Document No. 106:67325 Original Reference No. 106:11075a,11078a
 Process for the preparation of 2-(2,4-difluorophenyl)-1,3-bis(1H-1,2,4-triazol-1-yl)propan-2-ol. Montserrat Faba, Eusebio (Inke S. A., Spain).
 Span. ES 549020 A1 19860301, 9 pp. (Spanish). CODEN: SPXXAD.
 APPLICATION: ES 1985-549020 19851119.

GI



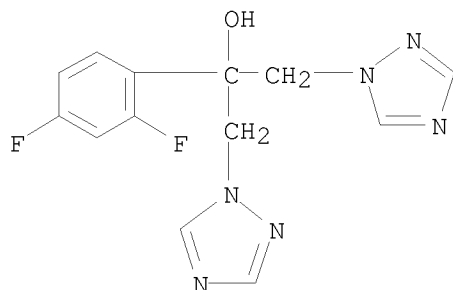
AB The antifungal title compound (I) is prepared by reaction of bis(triazolyl)propanone II with 2,4-F₂C₆H₃Z (Z = Li, MgX; X = Br, iodo). Thus, 2,4-F₂C₆H₃Br in THF was added to Mg in THF with BrCH₂CH₂Br as an initiator to give 2,4-F₂C₆H₃MgBr, which was added to II in THF to give 45% I.

IT 86386-73-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, by Grignard reaction of difluorohalobenzenes with bis(triazolyl)propanone)

RN 86386-73-4 CAPLUS

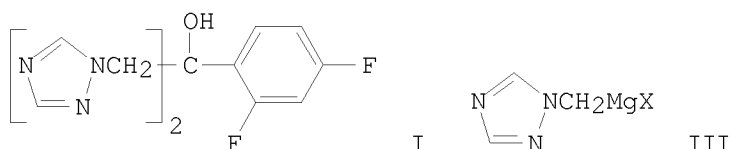
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3947 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1987:67324 Document No. 106:67324 Original Reference No. 106:11075a,11078a

Procedure for the preparation of 2-(2,4-difluorophenyl)-1,3-bis(1H-1,2,4-triazol-1-yl)propan-2-ol. Montserrat Faba, Eusebio (Inke S. A., Spain). Span. ES 549021 A1 19860301, 8 pp. (Spanish). CODEN: SPXXAD. APPLICATION: ES 1985-549021 19851119.

GI



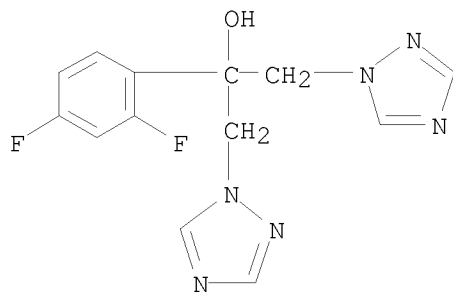
AB The fungicidal title compound (I) is prepared by reaction of 2,4-F₂C₆H₃CO₂Me (II) with (triazolylmethyl)magnesium halides III (X = Cl, Br, iodo). Thus, III (X = Cl) was prepared from the chloride and Mg in THF using BrCH₂CH₂Br as an initiator. Addition of the Grignard reagent to II in THF gave 45% I.

IT 86386-73-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by Grignard reaction of (halomethyl)triazoles with difluorobenzoate)

RN 86386-73-4 CAPLUS

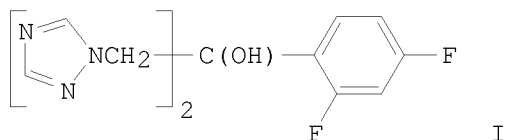
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3948 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:43330 Document No. 106:43330 Original Reference No. 106:7048h,7049a
Gas chromatographic method for the determination of fluconazole, a novel antifungal agent, in human plasma and urine. Wood, Peter R.; Tarbit, Michael H. (Pfizer Cent. Res., Sandwich/Kent, CT13 9NJ, UK). Journal of Chromatography, 383(1), 179-86 (English) 1986. CODEN: JOCRAM. ISSN: 0021-9673.

GI

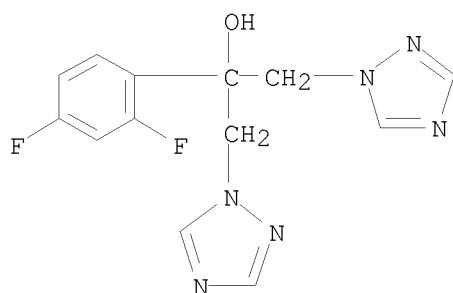


AB A gas chromatog. method for the determination of fluconazole (I) [86386-73-4] in human plasma and urine is described. Glass columns and packings are pretreated with pyridine and benzoyl chloride according to a modification of a prescribed described method by H. V. Street et al (1979). Plasma or urine containing I and the internal standard (UK 47265) is extracted with ethylacetate. Recovery of I from plasma or urine was 100 and 100.6%, resp. The concentration detection response was between 0.1 and 1.0 µg/mL, and the limit of detection was 0.1 µg/mL.

IT 86386-73-4, Fluconazole
 RL: ANT (Analyte); ANST (Analytical study)
 (determination of, in blood plasma and urine of humans by gas chromatog.)

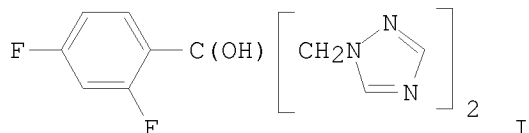
RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3949 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1987:27406 Document No. 106:27406 Original Reference No. 106:4479a,4482a
 The antifungal activity of UK-49,858 in animal models of superficial infections. Marriott, M. S.; Andrews, R. J.; Richardson, K.; Troke, P. F. (Pfizer Cent. Res., Sandwich/Kent, UK). Recent Adv. Chemother., Proc. Int. Congr. Chemother., 14th, Issue Antimicrobial Sect. 3, 1936-7. Editor(s): Ishigami, Joji. Univ. Tokyo Press: Tokyo, Japan. (English) 1985. CODEN: 55GNAX.

GI



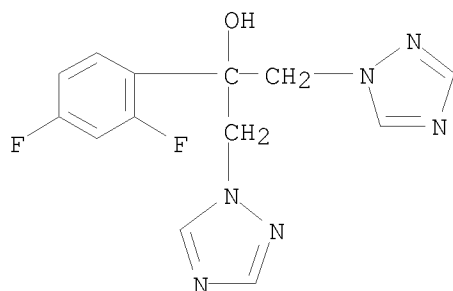
AB Fluconazole (UK-49858) (I) [86386-73-4] was orally effective in murine and guinea pig models of dermatophytosis with Trichophyton quinckeanum, T. mentagrophytes, T. rubrum, or Microsporum canis. It was also very effective orally against murine vaginal candidiasis, and intestinal candidiasis induced by Candida albicans; I was 5-10-fold more potent than ketoconazole in these models. These results suggest I will be useful for treating human superficial mycoses.

IT 86386-73-4, Fluconazole
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(antifungal activity of)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3950 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:27310 Document No. 106:27310 Original Reference No. 106:4459a,4462a
UK-49,858: a new triazole antifungal drug with novel pharmacokinetic properties in laboratory animals. Marriott, M. S.; Humphrey, M. J.; Tarbit, M. H. (Pfizer Cent. Res., Sandwich/Kent, UK). Recent Adv. Chemother., Proc. Int. Congr. Chemother., 14th, Issue Antimicrobial Sect. 3, 1934-5. Editor(s): Ishigami, Joji. Univ. Tokyo Press: Tokyo, Japan. (English) 1985. CODEN: 55GNAX.

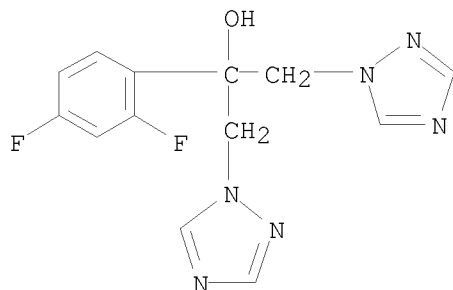
AB The pharmacokinetics of UK-49,858 (fluconazole) (I) [86386-73-4] were studied in mice, rats, and dogs. I showed linear kinetics with complete bioavailability. Its low plasma protein binding (approx. 11%) and moderate volume of distribution (approx. 0.8 L/kg) give the drug an even tissue distribution, including penetration into the cerebrospinal fluid. I was stable to metabolism, with 64-82% of a given dose being excreted unchanged in the urine. This results in a long plasma half-life, with predicted once-a-day dosing in man.

IT 86386-73-4

RL: BIOL (Biological study)
(pharmacokinetics and bioavailability of)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)

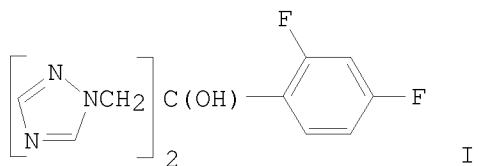


L3 ANSWER 3951 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:12418 Document No. 106:12418 Original Reference No. 106:2029a,2032a
UK-49,858: in vivo activity of a potent oral agent against systemic fungal infections. Richardson, K.; Andrews, R. J.; Marriott, M. S.; Troke, P. F. (Pfizer Cent. Res., Sandwich/Kent, UK). Recent Adv. Chemother., Proc. Int. Congr. Chemother., 14th, Issue Antimicrobial Sect. 3, 1940-1.

Editor(s): Ishigami, Joji. Univ. Tokyo Press: Tokyo, Japan. (English)
1985. CODEN: 55GNAX.

GI



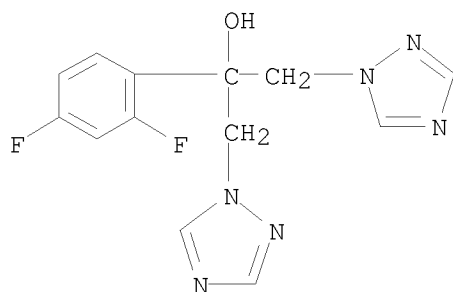
AB Orally administered fluconazole (UK-49,858) (I) [86386-73-4] was active in mice models of systemic candidiasis, aspergillosis and cryptococcosis, as well as cryptococcosis of the brain and lungs; it was equally active orally and parenterally. The drug was active in both normal and immune-suppressed animals. I was 5-100 times more active than ketoconazole.

IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)
(systemic fungal infection therapy with)

RN 86386-73-4 CAPLUS

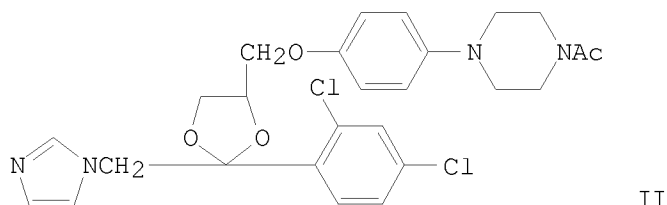
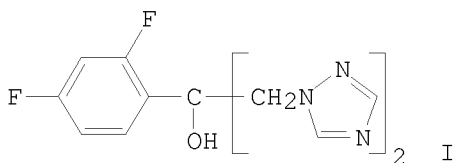
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3952 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:2738 Document No. 106:2738 Original Reference No. 106:531a,534a The activity of fluconazole (UK-49,858), a novel bis-triazole antifungal and ketoconazole against fungal and mammalian sterol C14 demethylases. Marriott, M. S.; Pye, G. W.; Richardson, K.; Troke, P. F. (Pfizer Cent. Res., Sandwich/Kent, UK). In Vitro In Vivo Eval. Antifungal Agents, Proc. Int. Symp., Meeting Date 1985, 143-6. Editor(s): Iwata, Kazuo; Vanden Bossche, H. Elsevier: Amsterdam, Neth. (English) 1986. CODEN: 55GMAU.

GI



AB The activity of fluconazole (I) [86386-73-4] and ketoconazole (II) [65277-42-1] at inhibiting sterol C14 demethylase [90463-45-9] of *Candida albicans* and rat liver was studied. II showed a selectivity for the fungal enzyme of 100 fold. On the other hand the degree of selectivity with I was greater than 10,000 fold. However, II was more active than I at inhibiting C14 demethylation in whole yeast cells. This suggests that II may accumulate in the yeast cell. The results are discussed with respect to the fungicidal activity of the 2 azoles.

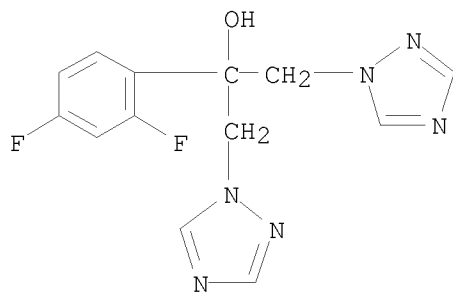
IT 86386-73-4, Fluconazole

RL: BIOL (Biological study)

(sterol C14 demethylase of *Candida albicans* and liver inhibition by)

RN 86386-73-4 CAPLUS

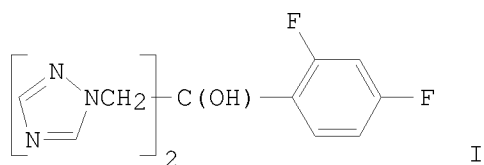
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



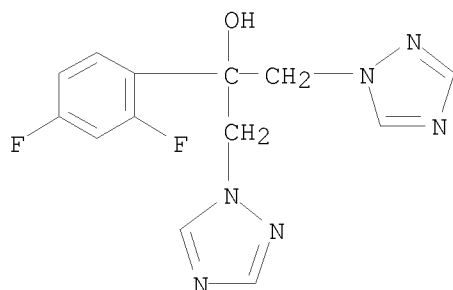
L3 ANSWER 3953 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1987:240 Document No. 106:240 Original Reference No. 106:42h,43a Treatment of murine histoplasmosis with UK 49,858 (fluconazole). Graybill, John R.; Palou, Elsa; Ahrens, Joan (Health Sci. Cent., Univ. Texas, San Antonio, TX, USA). American Review of Respiratory Disease, 134(4), 768-70 (English) 1986. CODEN: ARDSBL. ISSN: 0003-0805.

GI



- AB Fluconazole (I) [86386-73-4] was compared with ketoconazole and with amphotericin B in treatment of pulmonary histoplasmosis in immunol. intact mice and in congenitally athymic nude mice. Both fluconazole and amphotericin B increased survival and reduced fungal burden in normal mice. All 3 drugs equally prolonged survival of nude mice challenged with *Histoplasma capsulatum*, and all effectively reduced the fungal burden. Fluconazole may be a useful antifungal drug in treatment of murine histoplasmosis.
- IT 86386-73-4, Fluconazole
RL: BIOL (Biological study)
(histoplasmosis treatment with)
- RN 86386-73-4 CAPLUS
- CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



- L3 ANSWER 3954 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
1986:622617 Document No. 105:222617 Original Reference No. 105:35879a,35882a
Antifungal effects of fluconazole (UK 49858), a new triazole antifungal, in vitro. Odds, F. C.; Cheesman, S. L.; Abbott, A. B. (Dep. Microbiol., Univ. Leicester, Leicester, LE1 7RH, UK). Journal of Antimicrobial Chemotherapy, 18(4), 473-8 (English) 1986. CODEN: JACHDX. ISSN: 0305-7453.
- AB Fluconazole is a novel triazole antifungal intended for oral treatment of superficial and systemic mycoses. In tests done in standard mycol. media, the compound had minimal inhibitory concns. against pathogenic *Candida* species that were usually in excess of 100 mg/L. By contrast, its relative inhibition factors against *Candida* species (calculated from areas under the antifungal dose-response curves) were of the same order as those of other imidazole and triazole antifungal agents. Against pathogenic *Aspergillus* species and dermatophytes, the mean relative inhibition factors were the highest so far recorded for an azole antifungal, indicating a relatively weak inhibitory activity against these fungi. Fluconazole inhibited branching and hyphal development in *C. albicans* at concns. as low as 10⁻⁶ M (0.3 mg/L), but miconazole and ketoconazole were still active in these tests at concns. 100-fold lower than this. The new antifungal did not suppress ATP concns. in *C. albicans* spheroplasts, in common with other weakly lipophilic azole antifungals. This overall poor activity of fluconazole in vitro corresponds badly with its high activity in animal

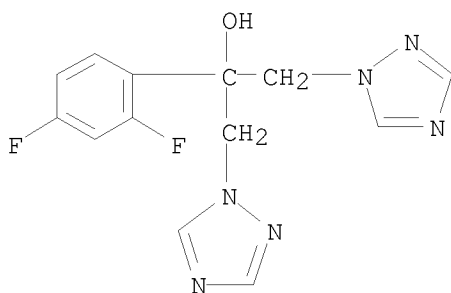
models of mycoses in vivo, and provides more evidence for the unreliability of tests with azole antifungals in vitro as predictors of potential efficacy in vivo.

IT 86386-73-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antifungal activity of)

RN 86386-73-4 CAPLUS

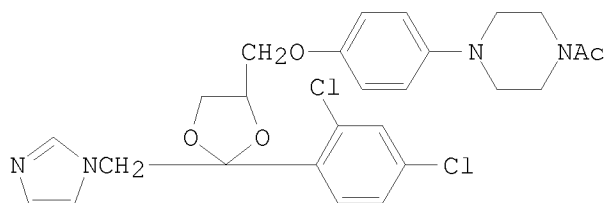
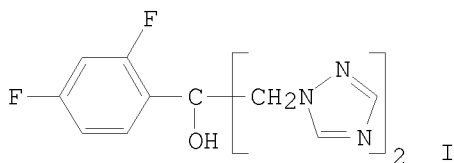
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3955 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1986:618350 Document No. 105:218350 Original Reference No. 105:35047a,35050a
Correlation of in vitro and in vivo activity of azole antifungals.
Richardson, K.; Andrews, R. J.; Marriott, M. S.; Tarbit, M. H.; Troke, P. F. (Pfizer Cent. Res., Sandwich/Kent, UK). In Vitro In Vivo Eval. Antifungal Agents, Proc. Int. Symp., Meeting Date 1985, 147-9. Editor(s): Iwata, Kazuo; Vanden Bossche, H. Elsevier: Amsterdam, Neth. (English) 1986. CODEN: 55GMAU.

GI



II

AB The min. inhibitory concns. (MICs) of ketoconazole (I) [65277-42-1] and fluconazole (II) [86386-73-4] against *Candida albicans* y 0102 were estimated using the agar dilution method. On complex media (Diagnostic

Test

Agar, DSTK) II did not completely inhibit the growth of *C. albicans* even at 100 $\mu\text{g/mL}$ whereas I showed an MIC of 25 $\mu\text{g/mL}$. Replacement of the DSTA by a defined Tissue Culture Agar allowed II to exhibit an MIC of

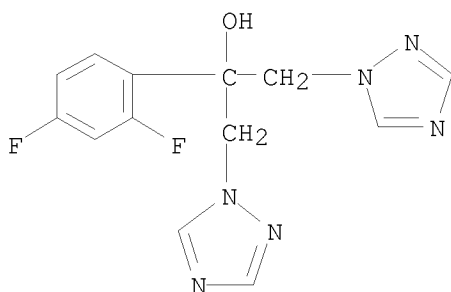
0.8 µg/mL, although it was .apprx.80 fold less potent than I. Against a vaginal candidiasis infection model in mice, II was .apprx.14 times more active than I. Comparing pharmacokinetics, II has a longer half-life than I (4.5 h vs. 1.5 h) and for lower protein binding (11% vs. 99%) which leads to II having prolonged high serum levels of unbound drug. Examination of the drug-level/time shows that at a dose of 4.4 mg/kg the levels of unbound II exceed its MIC value for 9 h in each 24 h period. A dose of 60 mg/kg of I is required to achieve a similar effect, despite its greater in vitro antifungal potency. The superiority of II is undoubtedly a consequence of its high, sustained blood-levels and its low protein bindings.

IT 86386-73-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antifungal activity of, against *Candida albicans*)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3956 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1986:568395 Document No. 105:168395 Original Reference No. 105:27093a,27096a
Improved method for estimation of azole antifungal inhibitory concentrations against *Candida* species, based on azole/antibiotic interactions. Odds, F. C.; Abbott, A. B.; Pye, G.; Troke, P. F. (Dep. Microbiol., Univ. Leicester, Leicester, LE1 7RH, UK). Journal of Medical and Veterinary Mycology, 24(4), 305-11 (English) 1986. CODEN: JMVME0. ISSN: 0268-1218.

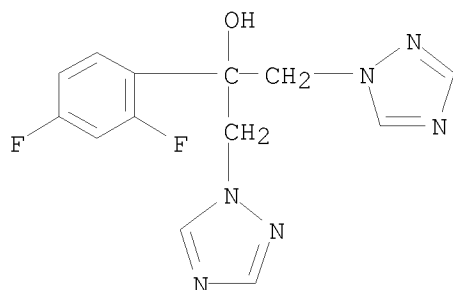
AB Low, reproducible minimal inhibitory concns. (MICs) against *Candida* species, with sharp, precise end points in complex media were achieved for imidazoles (clotrimazole, econazole, miconazole, tioconazole, and ketoconazole) and triazoles (fluconazole, itraconazole, vibunazole, ICI 153066) by including in the test medium antibacterial antibiotics that bind to the 80 S eukaryotic ribosome and inhibit protein synthesis, i.e., blastidicin, cycloheximide, doxycycline, neomycin, and gentamicin. The presence of these antibiotics reduced MICs, on average, by 50-250-fold. Other protein synthesis inhibitors (rifampicin, erythromycin, lincomycin, clindamycin, chloramphenicol, and fusidic acid) were not effective, and the antibiotics did not affect MICs for *Aspergillus* species. The low azole MICs were in close agreement with MICs obtained in a defined, tissue culture-based medium lacking added antibiotics.

IT 86386-73-4

RL: ANST (Analytical study)
(min. inhibitory concns. of, against *Candida* species, antibiotic interactions in estimation of)

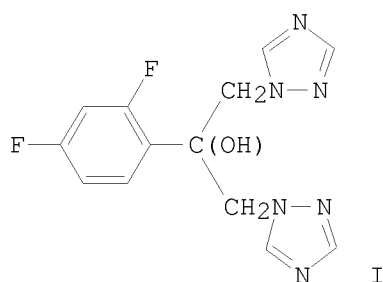
RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3957 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1986:564515 Document No. 105:164515 Original Reference No. 105:26349a,26352a
 Treatment of cryptococcal meningitis in mice with fluconazole. Palou de
 Fernandez, Elsa; Patino, Maria Mercedes; Graybill, John R.; Tarbit,
 Michael H. (Audie Murphy Mem. Veterans Adm. Hosp., Univ. Texas, San
 Antonio, TX, 78284, USA). Journal of Antimicrobial Chemotherapy, 18(2),
 261-70 (English) 1986. CODEN: JACHDX. ISSN: 0305-7453.

GI



AB Fluconazole (I) [86386-73-4] was highly effective in
 suppressing cryptococcosis in mice challenged by the i.v. and intranasal
 routes, and was comparable with the other ketoconazole and amphotericin B
 in its protective capacity. However, fluconazole was superior to
 ketoconazole and comparable with amphotericin B after intracerebral
 challenge. Fluconazole may warrant clin. evaluation in cryptococcosis.

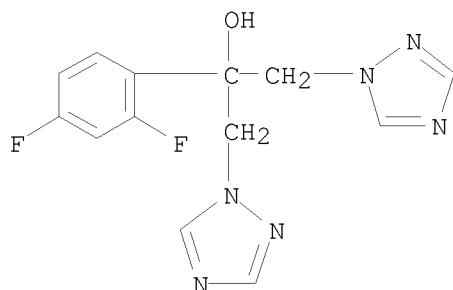
IT 86386-73-4

RL: BIOL (Biological study)

(Cryptococcus neoformans meningitis therapy with)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-
 1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)

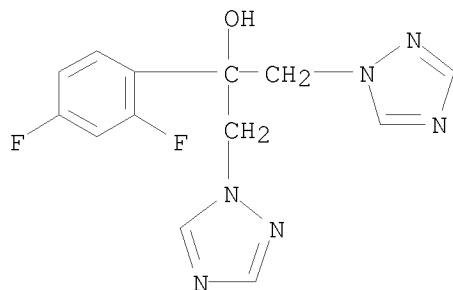


L3 ANSWER 3958 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1986:545747 Document No. 105:145747 Original Reference No. 105:23330h,23331a
 Activity of fluconazole (UK 49,858) and ketoconazole against *Candida albicans* in vitro and in vivo. Rogers, Thomas E.; Galgiani, John N. (Med. Res. Serv., Veterans Adm. Med. Cent., Tucson, AZ, 85723, USA). Antimicrobial Agents and Chemotherapy, 30(3), 418-22 (English) 1986. CODEN: AMACCQ. ISSN: 0066-4804.

AB Fluconazole (I) [86386-73-4], a new orally administered bis-triazole, was compared with ketoconazole (II) [65277-42-1] for activity in synthetic broth dilution susceptibility tests against *Candida albicans* and also in treatment of exptl. systemic candidal infections in rats. In vitro studies indicated that I activity is less sensitive to acidic medium than is that of II. At physiol. pH, I was .apprx.16-fold less active than II against 35 representative isolates of *C. albicans*. Two addnl. isolates (K-1 and K-3) recovered from patients who had failed II therapy were 32-64-fold more resistant than the median of each drug for other isolates. In animal studies, I was very effective in prolonging survival of rats infected with a representative candidal strain. With an inoculum sufficient to kill 29 of 38 sham-treated animals, only 1 of 18 animals treated with 0.5 mg I/kg-day died compared with 13 of 20 animals treated with 10.0 mg II/kg-day. However, when similar I treatment was administered to rats infected with the more resistant strain, K-1, no prolongation of survival was found. Thus, in vivo and in vitro results results between strains correlated well for I. However, in comparing results between drugs, II was 16-fold more active in vitro and I was 20-fold more active in vivo. This discrepancy may be due to drug distribution, modes of drug metabolism, or other pharmacol. differences between the 2 agents.

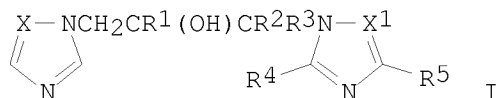
IT 86386-73-4
 RL: BIOL (Biological study)
 (Candida albicans susceptibility to, ketoconazole comparison with)

RN 86386-73-4 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3959 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1986:497476 Document No. 105:97476 Original Reference No. 105:15761a,15764a
 1,3-Diazolyl-2-propanol derivatives. Bayles, Richard William; Boyle, Francis Thomas; Gravestock, Michael Barry; Wardleworth, James Michael (Imperial Chemical Industries PLC, UK). Eur. Pat. Appl. EP 174769 A1 19860319, 68 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1985-306063 19850827. PRIORITY: GB 1984-22414 19840905; GB 1984-22415 19840905; GB 1985-8111 19850328.

GI



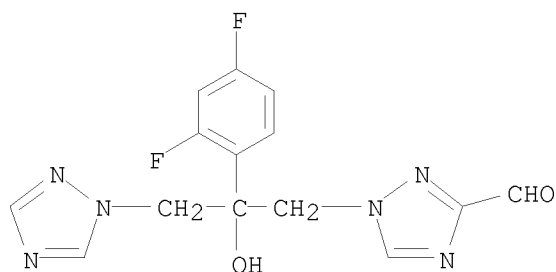
AB The title compds. [I; R1 = (un)substituted Ph, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heterocyclylalkynyl; R2, R3 = H, alkyl; R4, R5 = H, amino, (un)substituted alkyl, alkenyl, Ph, heterocyclyl; X, X1 = CH, N] were prepared as fungicides. Thus, 4-CF3OC6H4NH2 was sequentially diazotized, iodinated, lithiated, condensed with DMF, and hydrolyzed to give 4-CF3OC6H4CHO, which was treated with NCCH2PO(OEt)2 to give 4-CF3OC6H4CH:CHCN. The latter was cyclocondensed with H2NNHCHO to give 3-[4-(trifluoromethoxy)styryl]-1,2,4-triazole, which was reacted with 2,4-difluoro- α -(1,2,4-triazol-1-yl)acetophenone and Me3S+(O)I- to give I (R1 = 2,4-F2C6H3, R2-R5 = H, X = X1 = N) (II). In mice II had a min. ED of 0.25 mg/kg s.c. against Candida albicans.

IT 103962-27-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and Wittig reaction of, with methoxybenzylphosphonium salt)

RN 103962-27-2 CAPLUS

CN 1H-1,2,4-Triazole-3-carboxaldehyde, 1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]- (CA INDEX NAME)

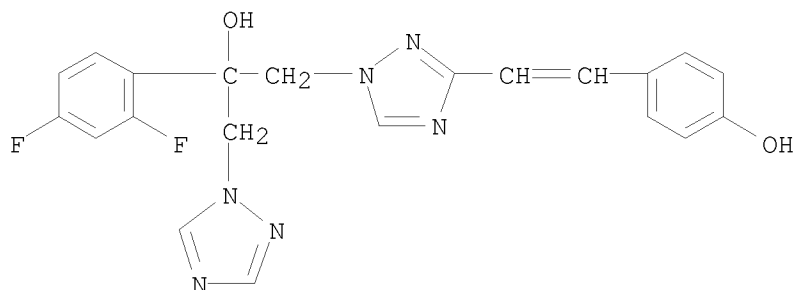


IT 103962-03-4P

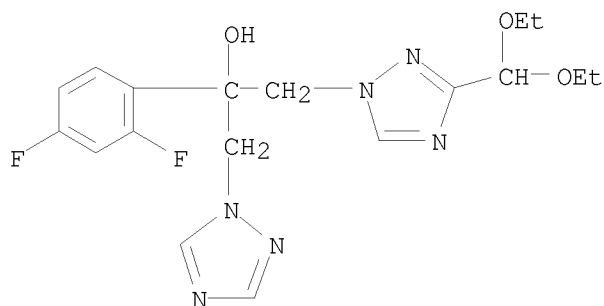
RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and chlorobenzoylation of)

RN 103962-03-4 CAPLUS

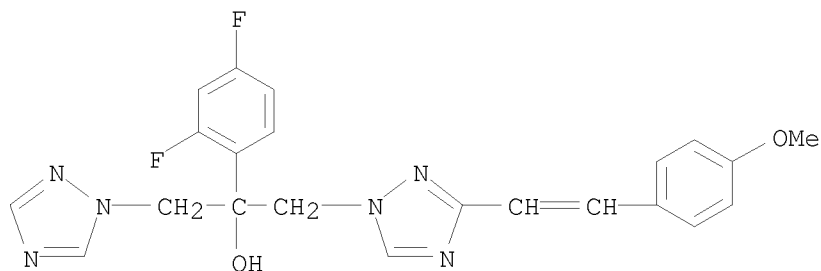
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[2-(4-hydroxyphenyl)ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



IT 103962-28-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation and hydrolysis of)
 RN 103962-28-3 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, 3-(diethoxymethyl)-α-(2,4-
 difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



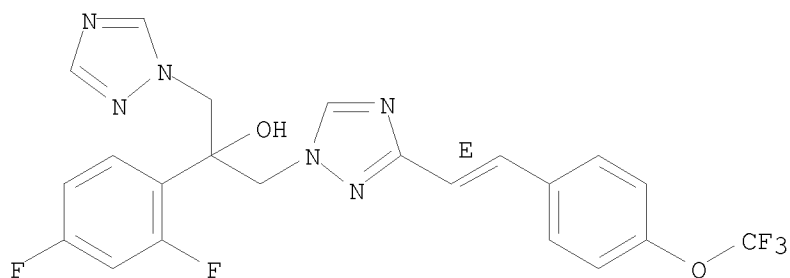
IT 95728-44-2P 103961-69-9P 103961-72-4P
 103961-73-5P 103961-74-6P 103961-75-7P
 103961-76-8P 103961-77-9P 103961-78-0P
 103961-79-1P 103961-80-4P 103961-81-5P
 103961-82-6P 103961-83-7P 103961-84-8P
 103961-85-9P 103961-86-0P 103961-87-1P
 103961-88-2P 103961-89-3P 103961-90-6P
 103961-91-7P 103961-92-8P 103962-00-1P
 103962-01-2P 103962-02-3P 103992-88-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as agricultural and medical fungicide)
 RN 95728-44-2 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[2-(4-
 methoxyphenyl)ethenyl]-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX
 NAME)



RN 103961-69-9 CAPLUS

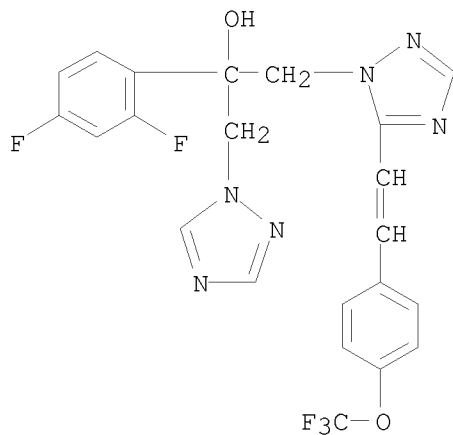
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)-3-[2-[4-(trifluoromethoxy)phenyl]ethenyl]-, (E)-(9CI) (CA INDEX NAME)

Double bond geometry as shown.



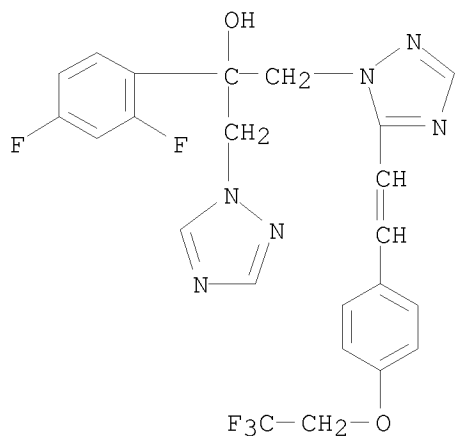
RN 103961-72-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)-5-[2-[4-(trifluoromethoxy)phenyl]ethenyl]- (CA INDEX NAME)



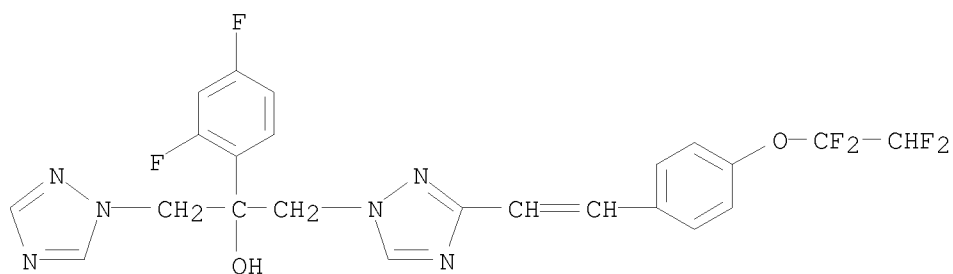
RN 103961-73-5 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)-5-[2-[4-(2,2,2-trifluoroethoxy)phenyl]ethenyl]- (CA INDEX NAME)



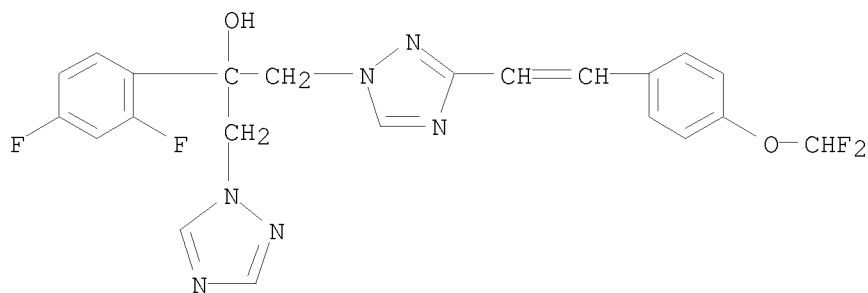
RN 103961-74-6 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[2-[4-(1,1,2,2-tetrafluoroethoxy)phenyl]ethenyl]-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



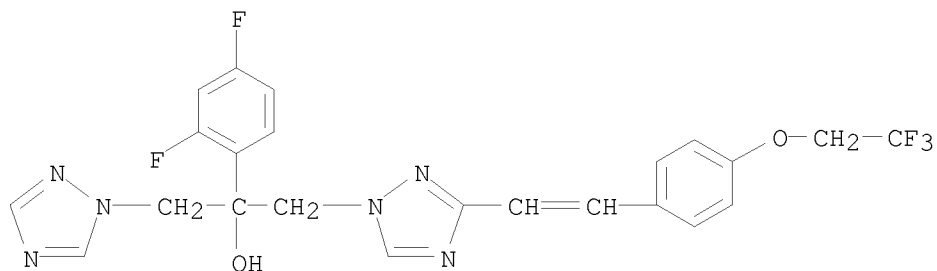
RN 103961-75-7 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[2-[4-(difluoromethoxy)phenyl]ethenyl]-α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



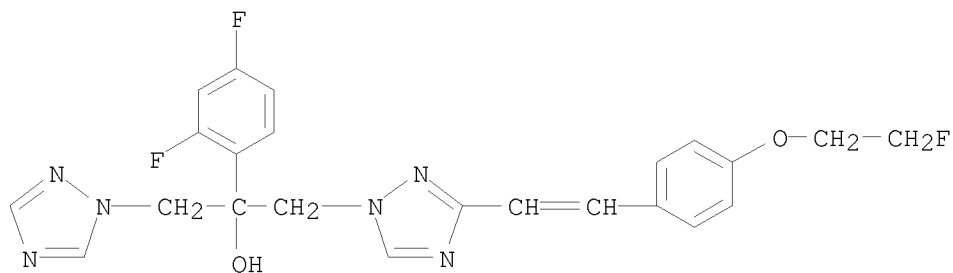
RN 103961-76-8 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)-3-[2-[4-(2,2,2-trifluoroethoxy)phenyl]ethenyl]- (CA INDEX NAME)



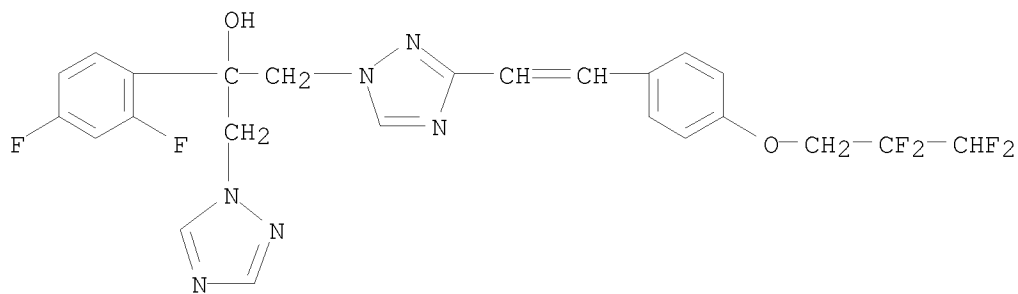
RN 103961-77-9 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[2-[4-(2-fluoroethoxy)phenyl]ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



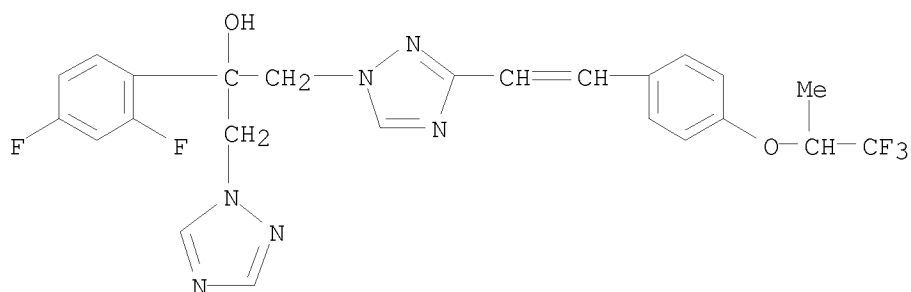
RN 103961-78-0 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[2-[4-(2,2,3,3-tetrafluoropropoxy)phenyl]ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



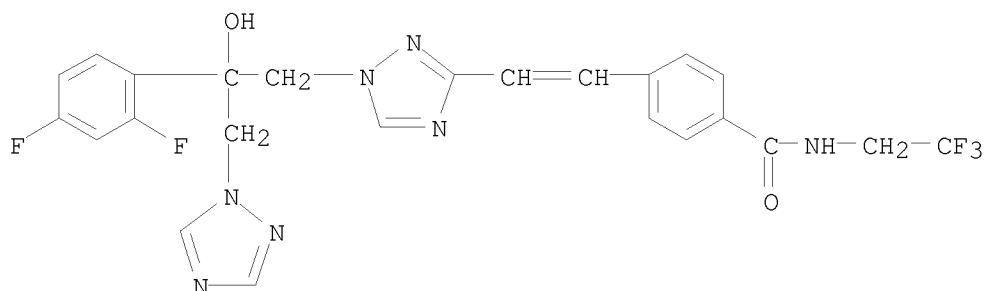
RN 103961-79-1 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)-3-[2-[4-(2,2,2-trifluoro-1-methylethoxy)phenyl]ethenyl]- (CA INDEX NAME)



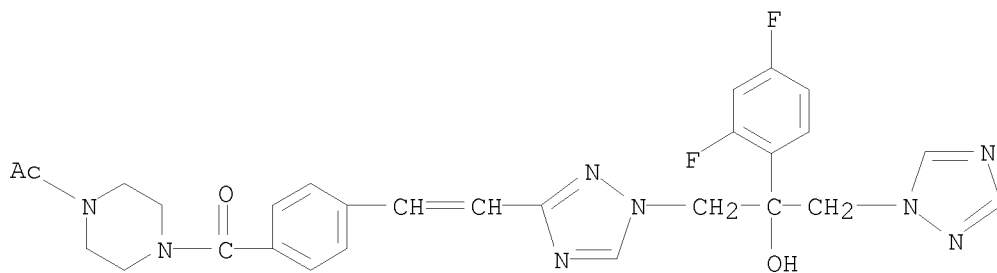
RN 103961-80-4 CAPLUS

CN Benzamide, 4-[2-[1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]-1H-1,2,4-triazol-3-yl]ethenyl]-N-(2,2,2-trifluoroethyl)- (CA INDEX NAME)



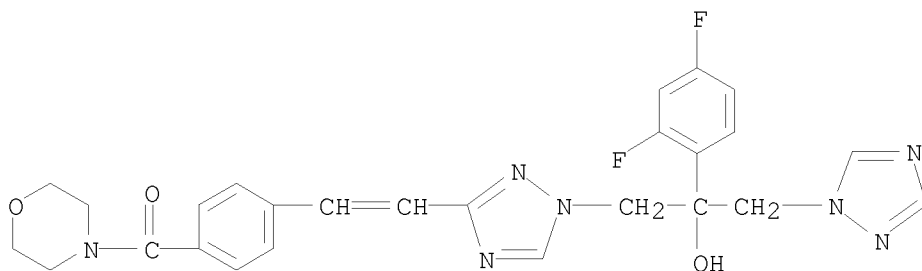
RN 103961-81-5 CAPLUS

CN Piperazine, 1-acetyl-4-[4-[2-[1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]-1H-1,2,4-triazol-3-yl]ethenyl]benzoyl]- (9CI) (CA INDEX NAME)



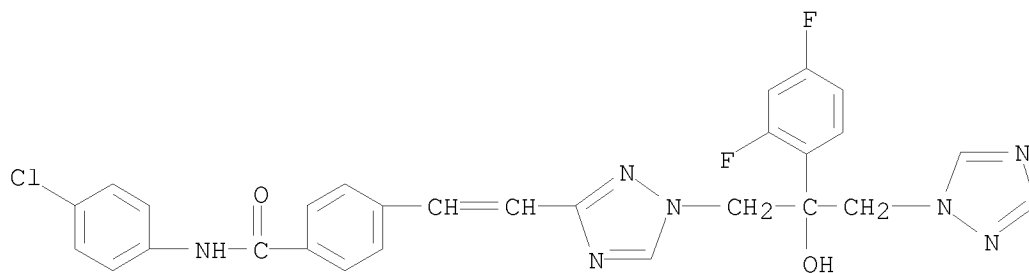
RN 103961-82-6 CAPLUS

CN Morpholine, 4-[4-[2-[1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]-1H-1,2,4-triazol-3-yl]ethenyl]benzoyl]- (9CI) (CA INDEX NAME)



RN 103961-83-7 CAPLUS

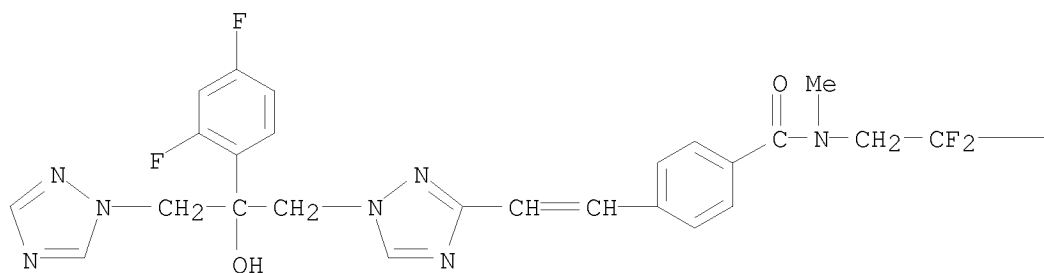
CN Benzamide, N-(4-chlorophenyl)-4-[2-[1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]-1H-1,2,4-triazol-3-yl]ethenyl]- (CA INDEX NAME)



RN 103961-84-8 CAPLUS

CN Benzamide, 4-[2-[1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]-1H-1,2,4-triazol-3-yl]ethenyl]-N-(2,2,3,3,4,4,4-heptafluorobutyl)-N-methyl- (CA INDEX NAME)

PAGE 1-A



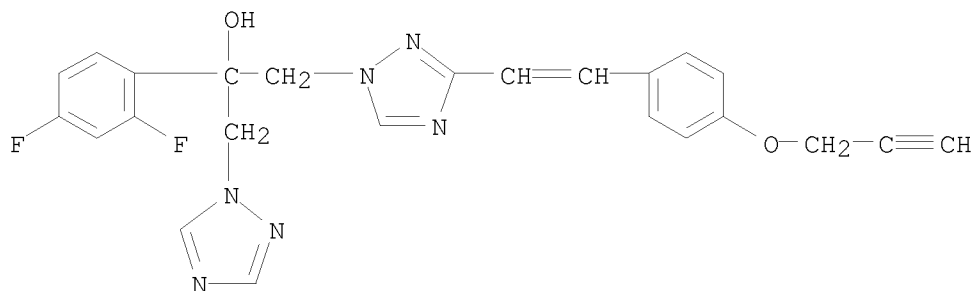
PAGE 1-B

—CF₂—CF₃

RN 103961-85-9 CAPLUS

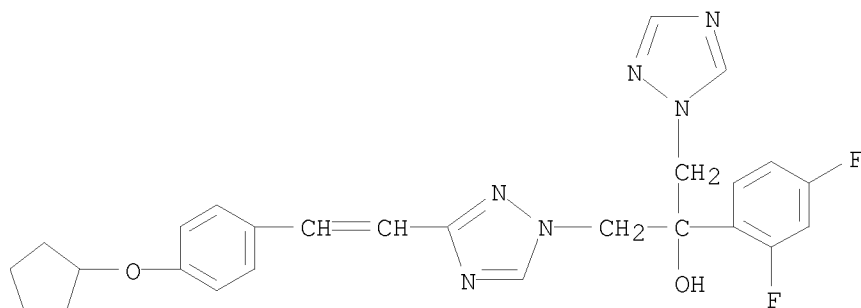
CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[2-[4-(2-

propynyloxy)phenyl]ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (9CI)
(CA INDEX NAME)



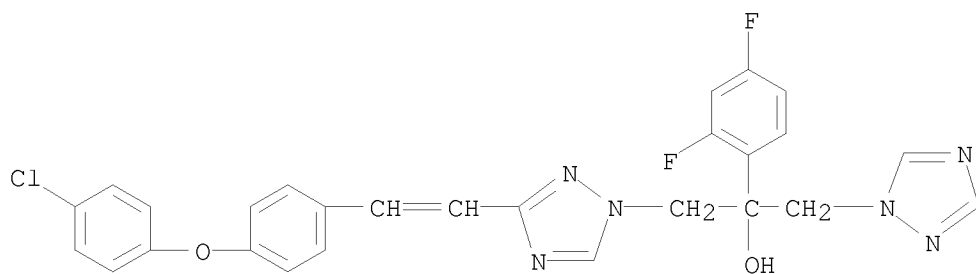
RN 103961-86-0 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[2-[4-(cyclopentyloxy)phenyl]ethenyl]-
 α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA
INDEX NAME)



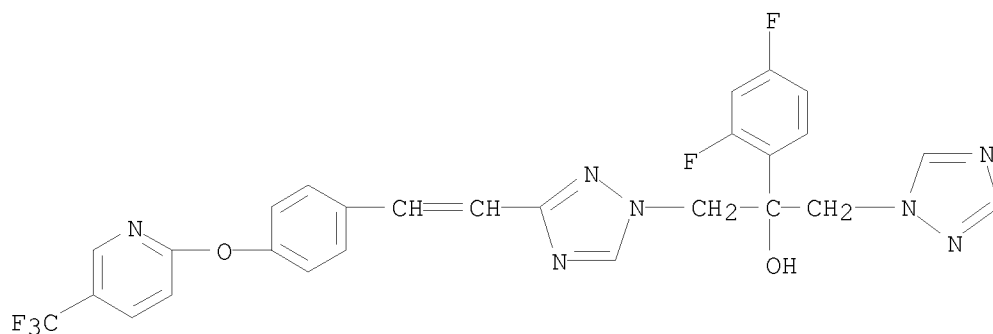
RN 103961-87-1 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[2-[4-(4-chlorophenoxy)phenyl]ethenyl]-
 α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA
INDEX NAME)



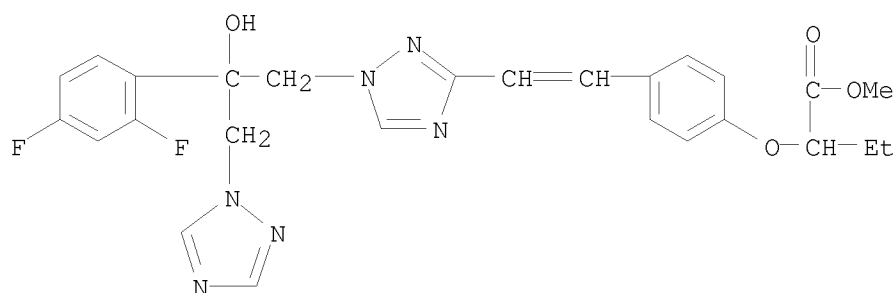
RN 103961-88-2 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-
1,2,4-triazol-1-ylmethyl)-3-[2-[4-[[5-(trifluoromethyl)-2-
pyridinyl]oxy]phenyl]ethenyl]- (CA INDEX NAME)



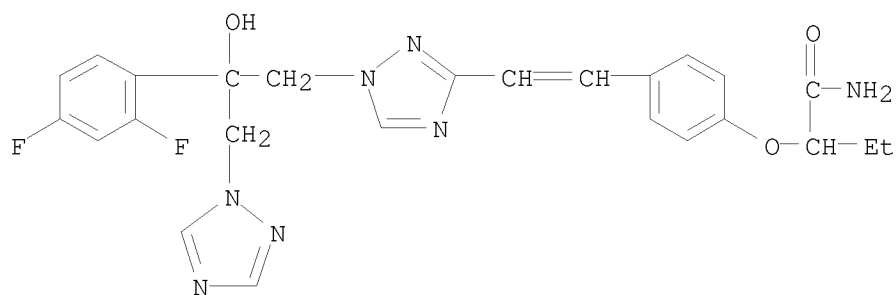
RN 103961-89-3 CAPLUS

CN Butanoic acid, 2-[4-[2-[1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]-1H-1,2,4-triazol-3-yl]ethenyl]phenoxy]-, methyl ester (CA INDEX NAME)



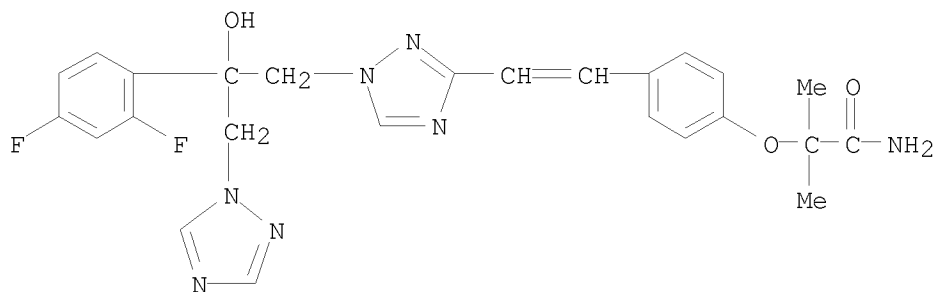
RN 103961-90-6 CAPLUS

CN Butanamide, 2-[4-[2-[1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]-1H-1,2,4-triazol-3-yl]ethenyl]phenoxy]- (CA INDEX NAME)



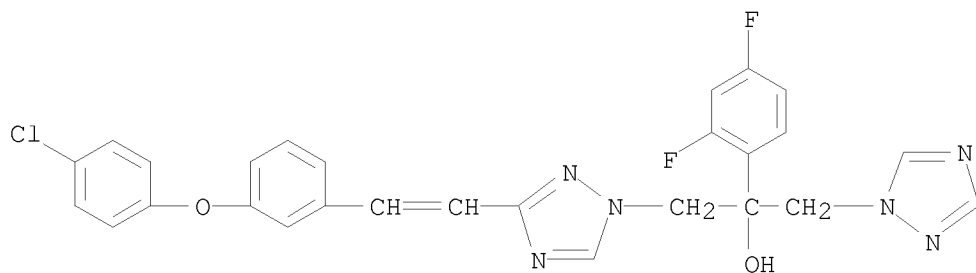
RN 103961-91-7 CAPLUS

CN Propanamide, 2-[4-[2-[1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]-1H-1,2,4-triazol-3-yl]ethenyl]phenoxy]-2-methyl- (CA INDEX NAME)



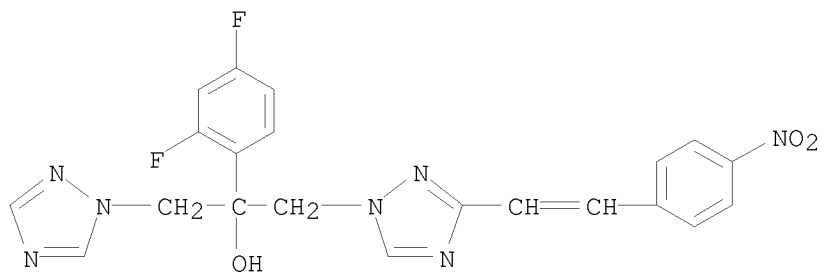
RN 103961-92-8 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[2-[3-(4-chlorophenoxy)phenyl]ethenyl]-
α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA
INDEX NAME)



RN 103962-00-1 CAPLUS

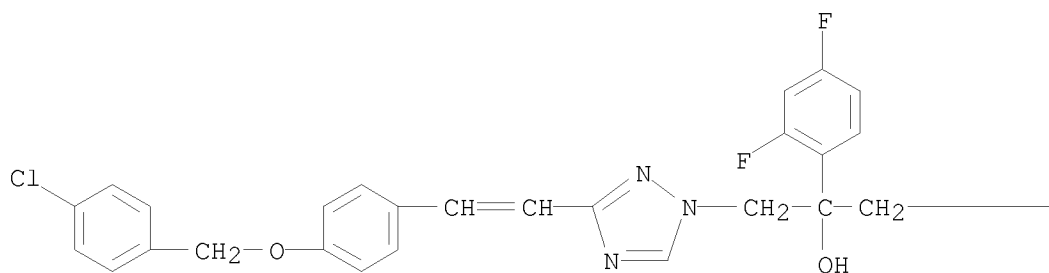
CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[2-(4-
nitrophenyl)ethenyl]-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX
NAME)



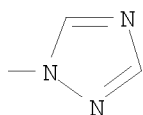
RN 103962-01-2 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[2-[4-[(4-chlorophenyl)methoxy]phenyl]ethenyl]-
α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)-
(CA INDEX NAME)

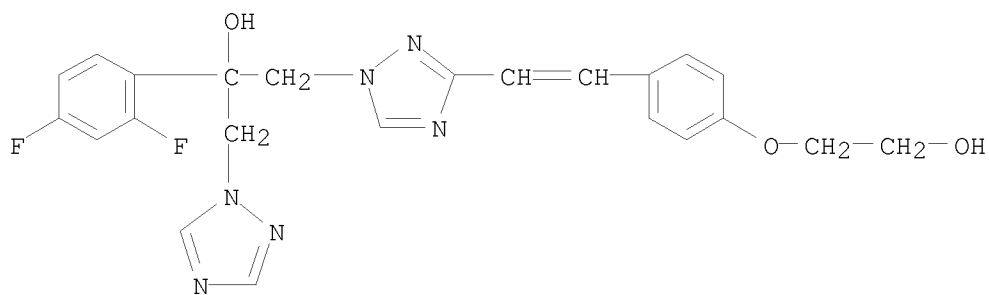
PAGE 1-A



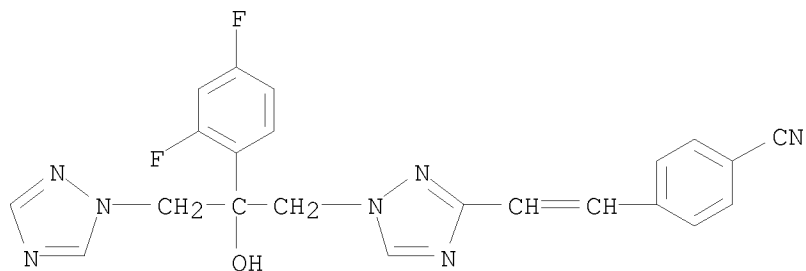
PAGE 1-B



RN 103962-02-3 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[2-[4-(2-hydroxyethoxy)phenyl]ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)

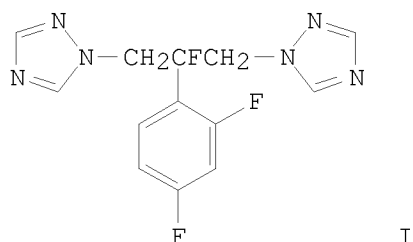


RN 103992-88-7 CAPLUS
 CN Benzonitrile, 4-[2-[1-[2-(2,4-difluorophenyl)-2-hydroxy-3-(1H-1,2,4-triazol-1-yl)propyl]-1H-1,2,4-triazol-3-yl]ethenyl]- (CA INDEX NAME)

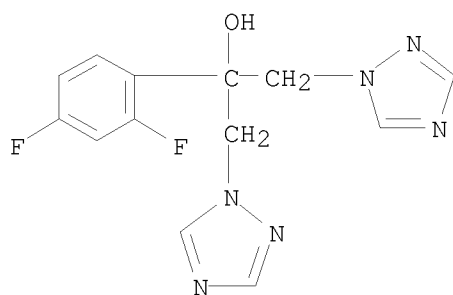


L3 ANSWER 3960 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1986:466458 Document No. 105:66458 Original Reference No. 105:10739a,10742a
 1,3-Bis(1H-1,2,4-triazol-1-yl)-2-fluoro-2-(2,4-difluorophenyl)propane, and
 antifungal composition containing it. Desai, Jagdish Armitlal; Copper,
 Alan Burce (Schering Corp., USA). Eur. Pat. Appl. EP 178682 A2 19860423,
 9 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE.
 (English). CODEN: EPXXDW. APPLICATION: EP 1985-113260 19851018.
 PRIORITY: US 1984-662856 19841019.

GI



AB Antifungal pharmaceuticals contain the title compound (I) or its salts.
 Thus, a tablet was prepared consisting of I 125, polyethylene glycol 100, Na
 lauryl sulfate 6.25, corn starch 30, anhydrous lactose 87.25, and Mg stearate
 1.5 mg. I was prepared by treating 1,3-bis(1H-1,2,4-triazol-1-yl)-2-(2,4-
 difluorophenyl)propan-2-ol with N,N-diethylaminosulfur trifluoride.
 IT 86386-73-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with diethylaminosulfur trifluoride)
 RN 86386-73-4 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-
 1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3961 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1986:421548 Document No. 105:21548 Original Reference No. 105:3569a,3572a
 Azole resistance in Candida albicans. Smith, K. J.; Warnock, D. W.;
 Kennedy, C. T. C.; Johnson, E. M.; Hopwood, V.; Van Cutsem, J.; Vanden
 Bossche, H. (Dep. Microbiol., Bristol R. Infirm., Bristol, BS2 8HW, UK).
 Journal of Medical and Veterinary Mycology, 24(2), 133-44 (English) 1986.
 CODEN: JMVMEQ. ISSN: 0268-1218.
 AB An isolate of C. albicans from a patients with chronic mucocutaneous
 candidosis who relapsed during ketoconazole treatment was compared with a
 number of other azole-sensitive and azole-resistant isolates by tests in

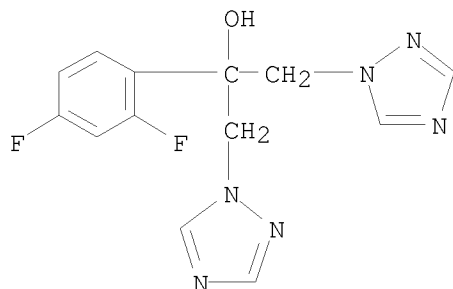
vitro and in 3 animal models of vaginal or disseminated infection. In vitro tests indicated that the isolate was cross-resistant to all imidazole and triazole antifungals tested. In the animal models, treatment with miconazole, ketoconazole, itraconazole or fluconazole failed to influence the infection.

IT 86386-73-4

RL: BIOL (Biological study)
(resistance to, of *Candida albicans*)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3962 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1986:417893 Document No. 105:17893 Original Reference No. 105:2845a,2848a
Treatment of murine coccidioidal meningitis with fluconazole (UK 49,858).
Graybill, John R.; Sun, Sung H.; Ahrens, Joan (Audie Murphy Mem. Veterans
Adm. Hosp., Univ. Texas, San Antonio, TX, 78284, USA). Journal of Medical
and Veterinary Mycology, 24(2), 113-19 (English) 1986. CODEN: JMVMEQ.
ISSN: 0268-1218.

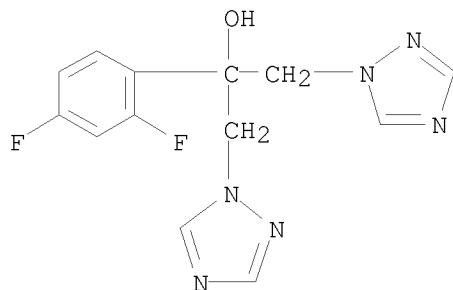
AB Male ICR mice were challenged intracerebrally with endospores of
Coccidioides immitis and then treated with fluconazole [86386-73-4] or amphotericin B or ketoconazole for comparison. All 3 drugs markedly prolonged survival, and all 3 drugs lowered brain colony counts of *C. immitis*. Survival of mice treated orally with fluconazole at the high dose was longer than in the ketoconazole-treated group. Amphotericin B was more efficacious than fluconazole. Further investigations are needed to determine the efficacy of fluconazole in treatment of coccidioidal meningitis.

IT 86386-73-4

RL: BIOL (Biological study)
(*Coccidioides immitis* meningitis treatment with)

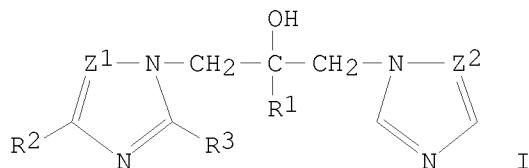
RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3963 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1986:224904 Document No. 104:224904 Original Reference No. 104:35679a,35682a
 Antifungal triazolealkanols. Gravestock, Michael Barry (Imperial Chemical
 Industries PLC, UK). Eur. Pat. Appl. EP 165775 A1 19851227, 19 pp.
 DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE.
 (English). CODEN: EPXXDW. APPLICATION: EP 1985-304226 19850613.
 PRIORITY: GB 1984-15889 19840621; GB 1984-17315 19840706.

GI



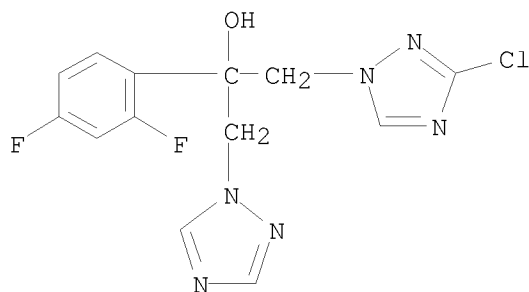
AB Heteroaryl-substituted isopropanols I (Z1 and Z2 are CH, N, halomethylidyne; R1 = Ph, halo-, cyano-, alkyl-, alkoxy-, or alkanesulfonylphenyl, etc.; one of R2 and R3 is F, Cl, Br, and the other is H, F, Cl, Br), which showed medical fungicidal activity, were prepared; I are useful as agricultural fungicides (no data). 3-Bromo-1-(2,4-difluorophenacyl)-1,2,4-triazole was treated with Me3S+O I- and 1,2,4-triazole to give I (Z1 = Z2 = N, R1 = 2,4-F2C6H3, R2 = Br, R3 = H).

IT 102429-08-3P 102429-20-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, as medical and agricultural fungicide)

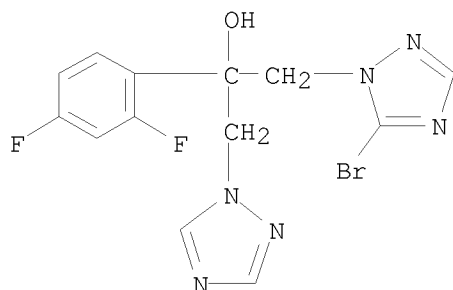
RN 102429-08-3 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-chloro- α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



RN 102429-20-9 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 5-bromo- α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



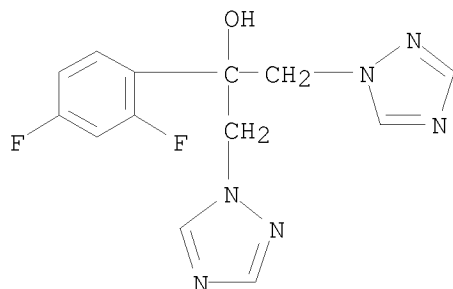
L3 ANSWER 3964 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1986:199651 Document No. 104:199651 Original Reference No. 104:31403a,31406a
 Comparison of the in vitro and in vivo activity of the bis-triazole derivative UK 49,858 with that of amphotericin B against *Histoplasma capsulatum*. Kobayashi, G. K.; Travis, Sharon; Medoff, G. (Sch. Med., Washington Univ., St. Louis, MO, 63110, USA). *Antimicrobial Agents and Chemotherapy*, 29(4), 660-2 (English) 1986. CODEN: AMACCQ. ISSN: 0066-4804.

AB The antifungal activity of UK 49,858 [86386-73-4] was evaluated in vitro against 7 strains of *H. capsulatum* and in vivo in AKR and C57BL/6 murine models of histoplasmosis. UK 49,858 had a lower toxicity for AKR and C87BL/6 mice than amphotericin B did. The therapeutic index of UK 49,858 was 4.3 for AKR mice and 7.1 for C57BL/6; with amphotericin B it was 2 for both mouse strains. Given orally, UK 49,858 compared favorably with amphotericin B given i.p. in either AKR or C57BL/6 mice infected with *H. capsulatum*.

IT 86386-73-4
 RL: BIOL (Biological study)
 (Histoplasma capsulatum susceptibility to)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3965 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1986:199647 Document No. 104:199647 Original Reference No. 104:31403a,31406a
 Comparison of itraconazole and fluconazole in treatment of cryptococcal meningitis and candida pyelonephritis in rabbits. Perfect, John R.; Savani, Dora V.; Durack, David T. (Med. Cent., Duke Univ., Durham, NC, 27710, USA). *Antimicrobial Agents and Chemotherapy*, 29(4), 579-83 (English) 1986. CODEN: AMACCQ. ISSN: 0066-4804.

AB Itraconazole [84625-61-6] and fluconazole [86386-73-4], two new triazoles, were examined for their antifungal activity in rabbits. Fluconazole easily crossed the blood-cerebrospinal fluid barrier, and active drug was eliminated in high concns. in the urine. On the other

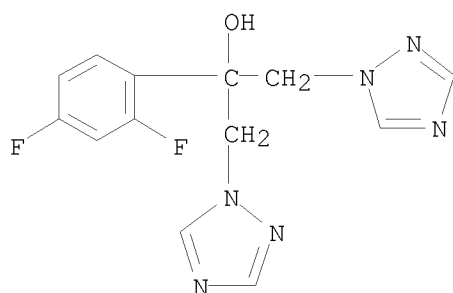
hand, itraconazole did not cross the blood-cerebrospinal fluid barrier in measurable amts., and urine concns. were variable. Despite differences in pharmacokinetics at the site of infection, both agents were equally effective in treating cryptococcal meningitis and candida pyelonephritis in animals. By using a ketoconazole [65277-42-1]-resistant strain of *Candida albicans*, cross-resistance in vivo between these two new triazole compds. was shown.

IT 86386-73-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(antifungal activity of, candida pyelonephritis and cryptococcal meningitis treatment in)

RN 86386-73-4 CAPLUS

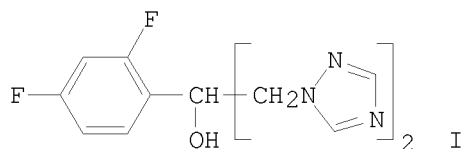
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3966 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1986:81580 Document No. 104:81580 Original Reference No. 104:12777a,12780a
Comparative activities of UK-49,858 and amphotericin B against *Blastomyces dermatitidis* infections in mice. Lyman, Caron A.; Sugar, Alan M.; Diamond, Richard D. (Med. Cent., Boston Univ., Boston, MA, 02118, USA). *Antimicrobial Agents and Chemotherapy*, 29(1), 161-2 (English) 1986.
CODEN: AMACCQ. ISSN: 0066-4804.

GI

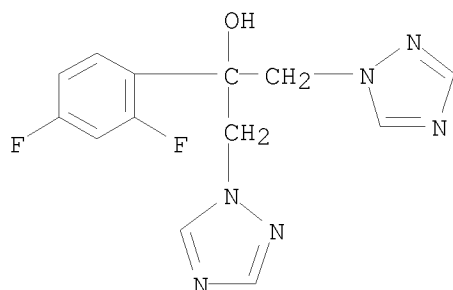


AB UK 49858 (I) [86386-73-4], a new antifungal triazole derivative, was compared with amphotericin B in the treatment of pulmonary infections by *Blastomyces dermatitidis* in male BALB-cByJ mice. The administration of I in daily doses of 25 or 50 mg/kg for 21 days gave 30 and 100% survival rates, resp. These results compared with 100% mortality in infected controls and 100% survival among mice treated with amphotericin B. I did not eradicate the fungus from the lungs of surviving animals, while amphotericin B effected sterilization of the lungs in 66% of the survivors.

IT 86386-73-4

RL: BIOL (Biological study)
(*Blastomyces dermatitidis* lung infections treatment with)

RN 86386-73-4 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)

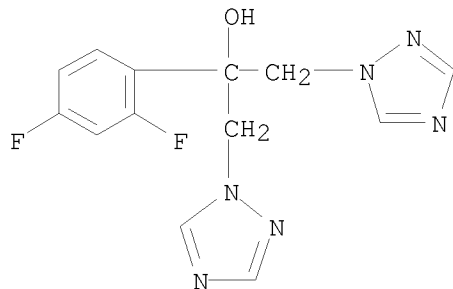


L3 ANSWER 3967 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1986:28463 Document No. 104:28463 Original Reference No. 104:4541a,4544a
 Efficacy of UK-49,858 (fluconazole) against Candida albicans experimental infections in mice. Troke, Peter F.; Andrews, Richard J.; Brammer, Keith W.; Marriott, Michael S.; Richardson, Kenneth (Pfizer Ltd., Sandwich/Kent, UK). Antimicrobial Agents and Chemotherapy, 28(6), 815-18 (English) 1985. CODEN: AMACCQ. ISSN: 0066-4804.

AB UK-49858 (fluconazole)(I) [86386-73-4], a new, orally absorbed bistriazole derivative, was evaluated against systemic infections with C. albicans in normal and immunosuppressed mice and against an intestinal infection with C. albicans in immunosuppressed mice. Orally administered ketoconazole was used as a comparison agent throughout, and orally administered amphotericin B was included for comparison in the exptl. intestinal infection. In a 10-day dosage regimen, I was far more active than ketoconazole against systemic infections with C. albicans in normal and immunosuppressed mice. In normal mice, extension of I dosing to 30 days resulted in prolongation of survival to over 90 days, and up to 60% of treated animals had no detectable C. albicans in their kidneys. In addition, over 90% of mice with intestinal candidiasis had culture-neg. feces after a 3-day treatment with I, but only 62 and 23% of mice gave this response after amphotericin B and ketoconazole therapy, resp. These data suggest that I may be of value in the treatment of systemic and gastrointestinal infections due to C. albicans in humans.

IT 86386-73-4
 RL: BIOL (Biological study)
 (Candida albicans infection treatment with)

RN 86386-73-4 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3968 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1986:204 Document No. 104:204 Original Reference No. 104:31a,34a

Pharmacokinetic evaluation of UK-49,858, a metabolically stable triazole antifungal drug, in animals and humans. Humphrey, M. J.; Jevons, S.; Tarbit, M. H. (Pfizer Cent. Res., Sandwich/Kent, CT13 9NJ, UK). Antimicrobial Agents and Chemotherapy, 28(5), 648-53 (English) 1985. CODEN: AMACCQ. ISSN: 0066-4804.

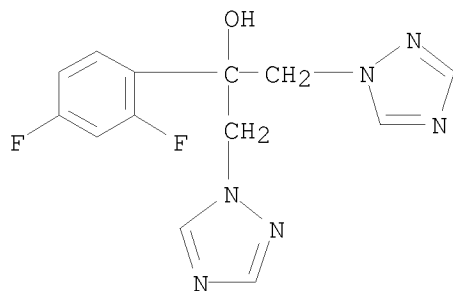
AB The pharmacokinetic profile of UK-49858 (fluconazole) [86386-73-4] was determined in mice, rats, dogs, and humans. Comparative data following oral and i.v. administration showed that bioavailability was essentially complete in all 4 species. Peak concns. in plasma of drug normalized to a 1-mg/kg dose level following oral administration, were relatively high: 0.7, 0.6, 1.1, and 1.4 µg/mL in mice, rats, dogs, and humans, resp. The vols. of distribution ranged between 1.1 L/kg in mice and 0.7 L/kg in humans, which are approx. to the values for total body water. Whole body autoradiog. studies in mice following i.v. administration of [14C]UK-49858 demonstrated that the drug was evenly distributed throughout the tissues, including the central nervous system and the gastrointestinal tract. Plasma protein binding was low (11 to 12%) in all species. Marked species differences were observed in elimination half-lives, with mean values of 4.8, 4.0, 14, and 22 h in mice, rats, dogs, and humans, resp. The major route of elimination of the drug was renal clearance, with about 70% of the dose being excreted unchanged in the urine in each species. Studies with [14C]UK-49858 on metabolism and excretion (i.v. and oral) in mice and dogs showed that about 90% of the dose was recovered as unchanged drug in urine and feces, confirming the metabolic stability of the drug. This pharmacokinetic profile is markedly different from that of imidazole antifungal drugs and undoubtedly contributes to the excellent efficacy of UK-49858 in vivo.

IT 86386-73-4

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(pharmacokinetics of, in humans and laboratory animals)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3969 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1985:553256 Document No. 103:153256 Original Reference No. 103:24383a,24386a Penetration of imidazoles and triazoles into cerebrospinal fluid of rabbits. Perfect, John R.; Durack, David T. (Med. Cent., Duke Univ., Durham, NC, 27710, USA). Journal of Antimicrobial Chemotherapy, 16(1), 81-6 (English) 1985. CODEN: JACHDX. ISSN: 0305-7453.

AB The penetration of 2 imidazoles (ketoconazole [65277-42-1] and vibunazole [80456-55-9]) and 2 triazoles (itraconazole [84625-61-6] and UK-49,858 [86386-73-4]) into cerebrospinal fluid (CSF) of rabbits with and without meningitis was studied. There were wide differences in degree of penetration of these drugs into CSF, from <3% to 66% of simultaneous serum

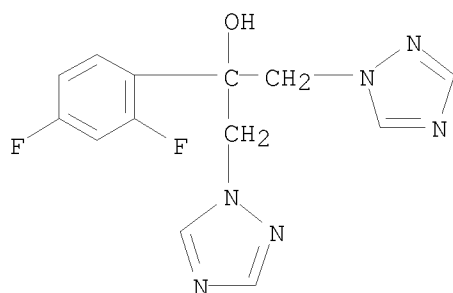
concns. UK-49,858, which has little protein-binding, penetrated freely whereas itraconazole, which is highly protein-bound, could not be detected in CSF. Intermediate concns. of vibunazole and ketoconazole were found in CSF. Presence of meningeal inflammation modestly increased CSF concns. of ketoconazole but had no effect on penetration of the other 3 drugs. The excellent penetration of UK-49,858 indicates that it has promise for treatment of central nervous system fungal infections.

IT 86386-73-4

RL: BIOL (Biological study)
(cerebrospinal fluid penetration by)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



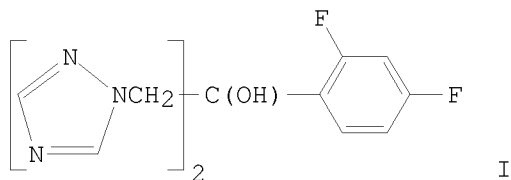
L3 ANSWER 3970 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

1985:431996 Document No. 103:31996 Original Reference No. 103:5083a,5086a

Activity of UK-49,858, a bistriazole derivative, against experimental infections with *Candida albicans* and *Trichophyton mentagrophytes*.

Richardson, Kenneth; Brammer, Keith W.; Marriott, Michael S.; Troke, Peter F. (Pfizer Cent. Res., Pfizer Ltd., Sandwich/Kent, UK). *Antimicrobial Agents and Chemotherapy*, 27(5), 832-5 (English) 1985. CODEN: AMACCQ. ISSN: 0066-4804.

GI

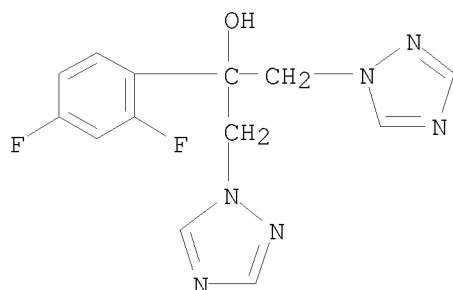


I

AB The therapeutic potential of UK-49,858 (I) [86386-73-4], a difluorophenyl bistriazole derivative, was assessed by evaluating its activity against systemic infections with *C. albicans* in normal mice and rats and in mice with impaired defense mechanisms, against vaginal infections with *C. albicans* in mice, and against dermal infections with *T. mentagrophytes* in guinea pigs. Orally administered ketoconazole was used as a comparative agent throughout, and parenterally administered amphotericin B was included in the study of *C. albicans* systemic infections in normal mice. The activity of UK-49,858 given orally to mice or rats infected systemically with *C. albicans* was far superior to that of ketoconazole. In addition, UK-49,858 showed activity comparable to that of amphotericin B when given parenterally, although the latter gave more prolonged

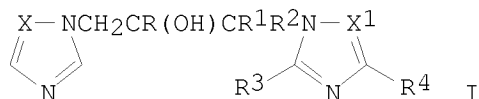
protection. UK-49,858 was also effective orally in curing exptl. candidal vaginitis in mice and trichophytosis in guinea pigs, against which it was approx. 10 times more active than ketoconazole. UK-49,858 may be of value in the treatment of both *C. albicans* and dermatophyte fungal infections in man.

IT 86386-73-4
 RL: BIOL (Biological study)
 (Candida albicans and Trichophyton mentagrophytes infection therapy with)
 RN 86386-73-4 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3971 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1985:149273 Document No. 102:149273 Original Reference No. 102:23457a,23460a
 Antifungal di(azolyl)propanol derivatives. Boyle, Francis Thomas
 (Imperial Chemical Industries PLC, UK). Eur. Pat. Appl. EP 122693 A1
 19841024, 45 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI,
 LU, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1984-301011
 19840216. PRIORITY: GB 1983-6351 19830308.

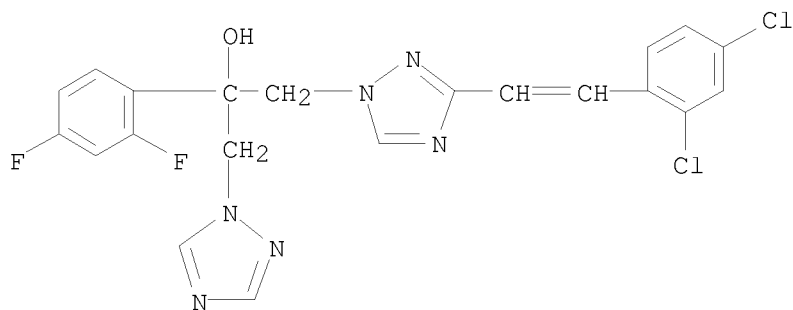
GI



AB Title compds. I [X, X1 = CH, N; R = (un)substituted Ph, phenylalkyl, alkyl, cycloalkyl; R1, R2 = H, alkyl; R3, R4 = H, NH2, (un)substituted alkyl, Ph, heterocyclyl] were prepared. Thus, 4-ClC6H4CH:CHCN was treated with EtOH-HCl to give 4-ClC6H4CH:CHC(:NH)OEt which was cyclized with HCONHNH2 to give 3-(4-chlorostyryl)-1,2,4-triazole (II). 2,4-Cl2C6H3COCH2Cl was treated with 1,2,4-triazole, followed by reaction with II in the presence of Me3S+OI- to give I [X = X1 = N, R-R2 = H; R3 = 4-ClC6H4CH:CH, R4 = H (III); R3 = H, R4 = 4-ClC6H4CH:CH]. III had a min. ED against Candida albicans and Trichophyton mentagrophytes in mice of 5 mg/kg orally.

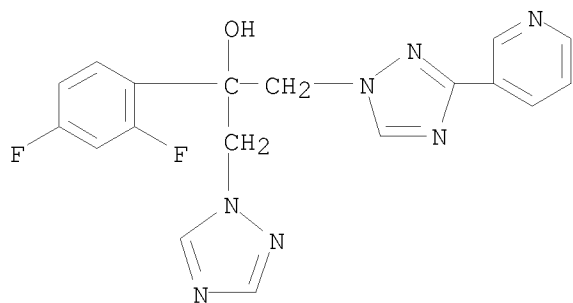
IT 95727-98-3P 95727-99-4P 95728-00-0P
 95728-03-3P 95728-32-8P 95728-33-9P
 95728-34-0P 95728-35-1P 95728-42-0P
 95728-43-1P 95728-44-2P 95728-46-4P
 95728-49-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 95727-98-3 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[2-(2,4-dichlorophenyl)ethenyl]- α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



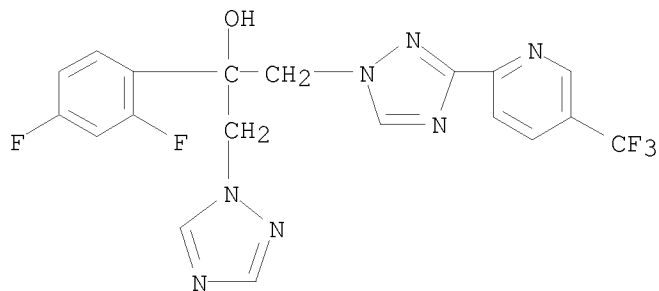
RN 95727-99-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-(3-pyridinyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



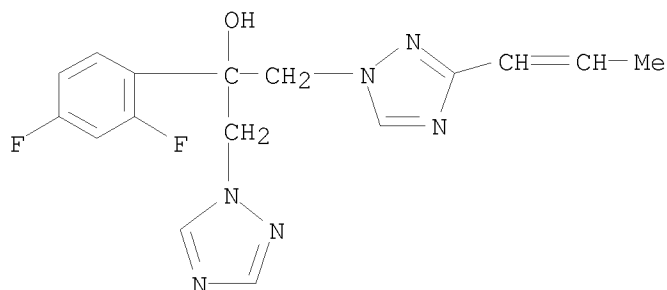
RN 95728-00-0 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)-3-[5-(trifluoromethyl)-2-pyridinyl]- (CA INDEX NAME)

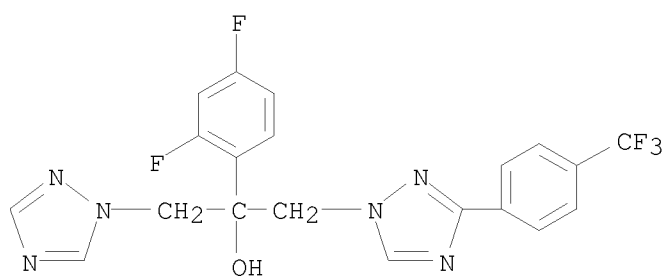


RN 95728-03-3 CAPLUS

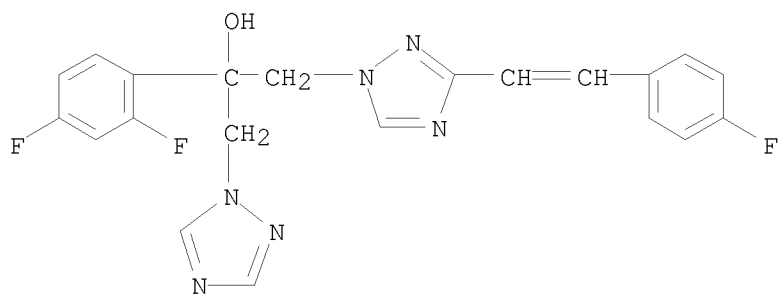
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-(1-propenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (9CI) (CA INDEX NAME)



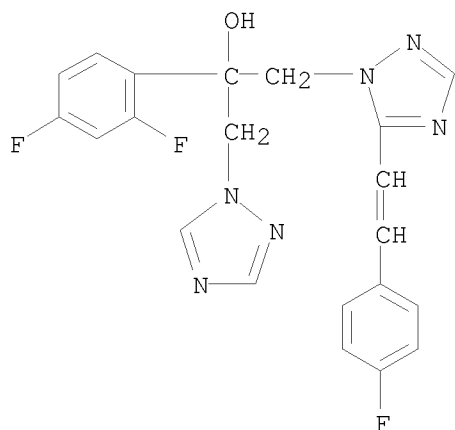
RN 95728-32-8 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)-3-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



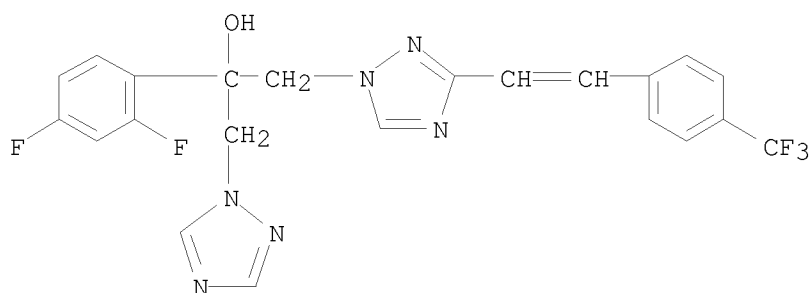
RN 95728-33-9 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[2-(4-fluorophenyl)ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



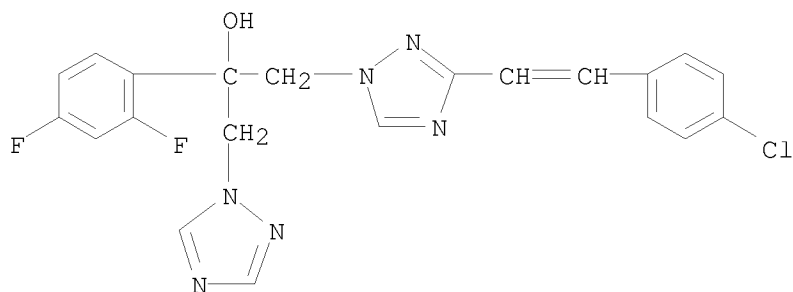
RN 95728-34-0 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-5-[2-(4-fluorophenyl)ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



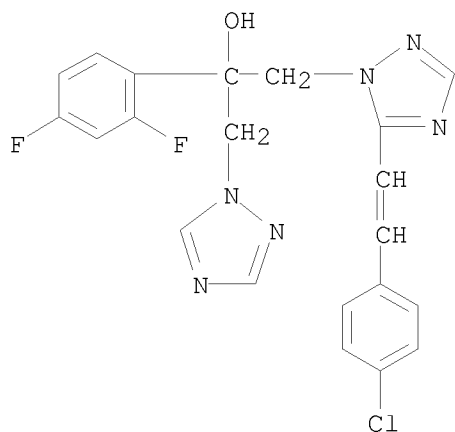
RN 95728-35-1 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)-3-[2-[4-(trifluoromethyl)phenyl]ethenyl]- (CA INDEX NAME)



RN 95728-42-0 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, 3-[2-(4-chlorophenyl)ethenyl]- α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)

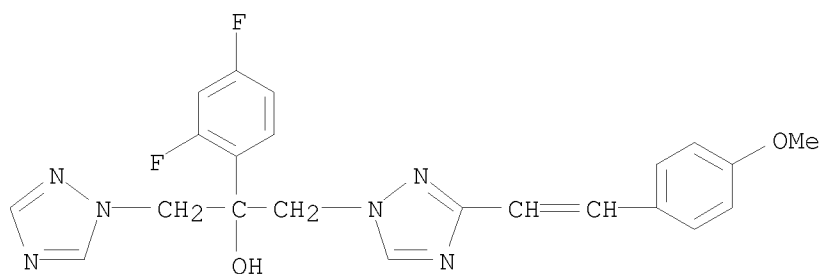


RN 95728-43-1 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, 5-[2-(4-chlorophenyl)ethenyl]- α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



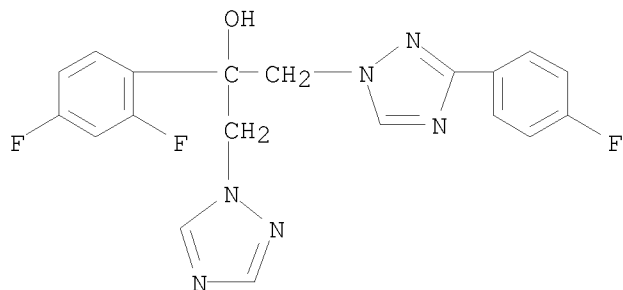
RN 95728-44-2 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[2-(4-methoxyphenyl)ethenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



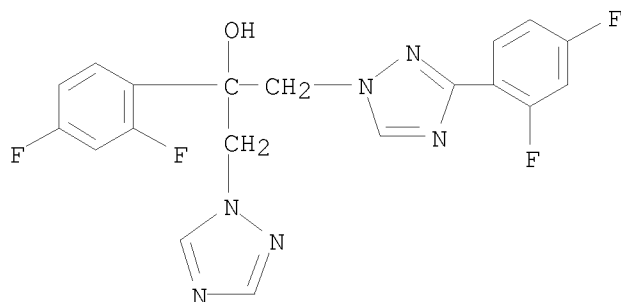
RN 95728-46-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-(4-fluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



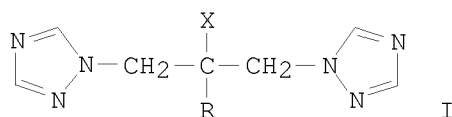
RN 95728-49-7 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α ,3-bis(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3972 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1984:139122 Document No. 100:139122 Original Reference No. 100:21238h,21239a
 Triazole antifungal agents. Narayanaswami, Subramaniyan; Richardson,
 Kenneth (Pfizer Ltd., UK; Pfizer Corp.). Eur. Pat. Appl. EP 96569 A2
 19831221, 25 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI,
 LU, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1983-303244
 19830606. PRIORITY: GB 1982-16746 19820609; GB 1982-22026 19820730.

GI



AB N,N'-Trimethylenebis(triazoles) I [X = F, Cl, Br; R = naphthyl,
 biphenyl, halo-, (trifluoromethyl)-, alkyl-, or alkoxyphenyl,
 5-chloro-2-pyridyl] were prepared, and they showed medicinal fungicidal
 activity; I are useful as agricultural fungicides (no data). Thus,
 2,4-F₂C₆H₃C(CH₂Cl)₂OH was treated with 1H-1,2,4-triazole and K₂CO₃ to
 yield I (X = OH, R = 2,4-F₂C₆H₃), and the latter reacted with SOBr₂ in
 MeCN to give I (X = Br, R = 2,4-F₂C₆H₃).

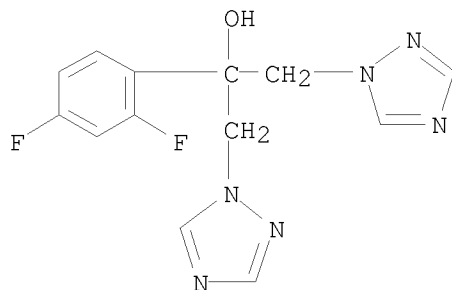
IT 86386-73-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(preparation and reaction of, with thionyl halides)

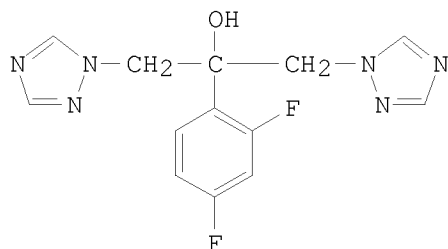
RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-
 1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3973 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1983:438467 Document No. 99:38467 Original Reference No. 99:6049a,6052a
 Triazoles. Richardson, Kenneth (Pfizer Ltd., UK). Brit. UK Pat. Appl. GB
 2099818 A 19821215, 8 pp. (English). CODEN: BAXXDU. APPLICATION: GB
 1982-11708 19820422. PRIORITY: GB 1981-17379 19810606; GB 1981-31370
 19811017; GB 1982-6329 19820304.

GI



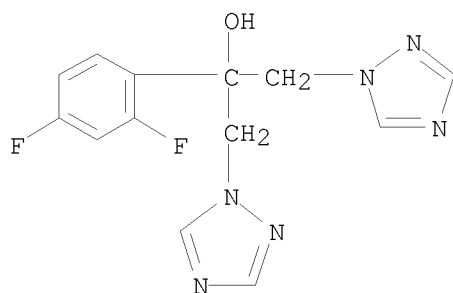
AB Bis-triazole derivative I was prepared, and it demonstrated fungicidal activity among mice. Thus, 2,4-F₂C₆H₃Br reacted with BuLi and ClCH₂COCH₂Cl, and the 2,4-F₂C₆H₃C(CH₂Cl)₂OH obtained was treated with 1H-1,2,4-triazole and K₂CO₃ to give I.

IT 86386-73-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and pharmaceutical fungicidal activity of)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3974 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN
 1937:44728 Document No. 31:44728 Original Reference No. 31:6220b-e Carbonyl constituents of eucalyptus oils. I. The occurrence of cryptal. Berry, P. A.; Macbeth, A. Killen; Swanson, T. B. Journal of the Chemical Society 986-9 (Unavailable) 1937. CODEN: JCSOA9. ISSN: 0368-1769.

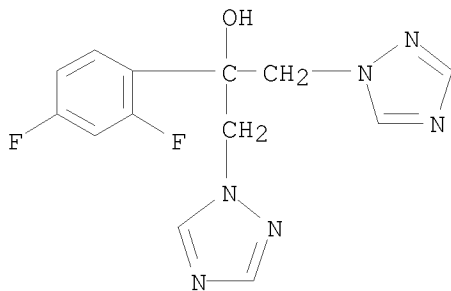
AB Cryptal was regarded by Penfold and Simonsen (C. A. 24, 2739) as 1-4-isopropyl- Δ^2 -cyclohexenal (I), but was shown by Cahn, P. and S. (C. A. 25, 4532) to be the corresponding ketone (II). The presence of I in eucalyptus oils appears to be problematical, since the examination of the I component of a number of oils has invariably shown the presence only of II. II is isolated from the oil of the fraction rich in CO compds. by shaking with Na₂SO₃ and is recovered by the addition of 40% NaOH in the presence of ether. II b₅ 94°, b₁₃ 104°, b₂₅ 110-12°, α D

ranging from -54.5° to -80.4° . The oxime of II b33 $160-1^{\circ}$, n_{D20} 1.5160, and yields an Ac derivative, b26 $200-12^{\circ}$, m. 103° (cf. C., P. and S.). Catalytic reduction of II yields 4-isopropylhexan-1-one(2,4-dinitrophenylhydrazone, orange-yellow, m. $119-20^{\circ}$), oxidized to β -isopropyladipic acid. Details are given of large-scale distns. of the oil from *E. cneorifolia*, no I being found in any of the fractions; the last fractions contain cineole (III), cuminal and 1-phellandral (2,4-dinitrophenylhydrazone, deep orange, m. $202-3^{\circ}$); II was also isolated. The oil from 1-year old leaves of *E. polybractea* contains 87.1% III, 7.6% alcs. and 2.5% aldehydes; that from 2-year old leaves, 91% III, 2.9% alcs. and 2.6% aldehydes; no I was present. Two samples of oil from *E. hemiphloia* contained 16.9 and 19.2% III and 19.4 and 22.6% aldehydes, α_D -17.2° and -21.8° ; again no I was present. A sample of I from the oil of this species (Penfold) was shown to be II.

IT 86386-73-4, Cryptal
(and derivs.)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3975 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

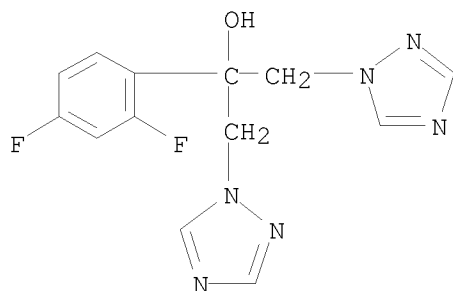
1931:40194 Document No. 25:40194 Original Reference No. 25:4532f-h
1-4-Isopropyl- Δ^2 -cyclohexen-1-one. Cahn, Robert S.; Penfold, Arthur R.; Simonsen, John L. Journal of the Chemical Society 1366-9 (Unavailable) 1931. CODEN: JCSOA9. ISSN: 0368-1769.

AB In an effort to prepare further quantities of 1-cryptal (C. A. 24, 2739), 4 samples were obtained from the oil of *Eucalyptus cneorifolia*, all of which proved to be the unsatd. ketone, 1-4-isopropyl- Δ^2 -cyclohexen-1-one (I). In spite of this there appears to be no doubt of the existence of 1-cryptal and it is possible that it is only present during certain seasons; the presence of the aldehyde has been definitely established only in the specimen of the oil from *E. hemiphloia*. I appears to be the first cyclic ketone of 9 C atoms which has been found to occur in nature. The 4 samples of I, b10 $98-100^{\circ}$, ranged in d_{1515} ; from 0.9472 to 0.9483, in n_{D20} from 1.4820 to 1.4848, in $[\alpha]_D$ from -59.3° to -66.4° ; semicarbazone, decomp. 185° ; p-nitrophenylhydrazone, pale brown, m. $168-9^{\circ}$; the H₂S derivative is amorphous and decomp. 82° . Electrolytic reduction of I gives 4-isopropylcyclohexanol (phenylurethan, m. $75-7^{\circ}$) and 4-isopropylcyclohexanone (semicarbazone, m. $188-9^{\circ}$; p-nitrophenylhydrazone, pale yellow, m. $123-4^{\circ}$); catalytic reduction gives the saturated ketone, which is oxidized by CrO₃ to β -isopropyladipic acid.

IT 86386-73-4P, Cryptal, 1-
RL: PREP (Preparation)
(preparation of)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



L3 ANSWER 3976 OF 3976 CAPLUS COPYRIGHT 2008 ACS on STN

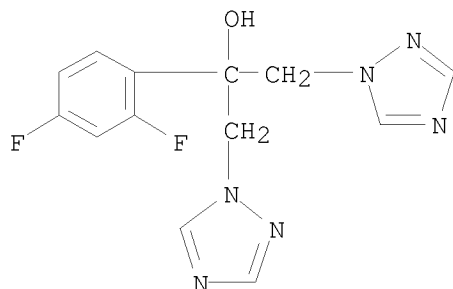
1930:25909 Document No. 24:25909 Original Reference No. 24:2739g-h
Constitution of cryptal. Penfold, Arthur R.; Simonsen, John. L. Journal of the Chemical Society 403-6 (Unavailable) 1930. CODEN: JCSOA9. ISSN: 0368-1769.

AB 1-Cryptal (which occurs with cuminaldehyde and phellandral) is 4-isopropyl- Δ^2 -acrylohexenal, since on oxidation with KMnO_4 in Me_2CO it gives nearly quant. d- α -isopropylglutaric acid, diospheuolcarboxylic acid probably being an intermediate product. Attempts to obtain in corresponding cyclohexenecarboxylic acid were unsuccessful. 9l-Cryplal oxime, b₁₇ 150°, n_D19.5 1.5139, with Ac_2O gives a compound c₃₂H₃₀O₂N₂ or c₂₂H₃₂O₂N₂, m. 102-3°, whose structure was not determined. The phenylhydrazone is an oil; the p-uitrophenylhydrazosone. terra-cotta. highly iridescent needles, m. 167°.

IT 86386-73-4, Cryptal
(and derivs.)

RN 86386-73-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



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TOTAL

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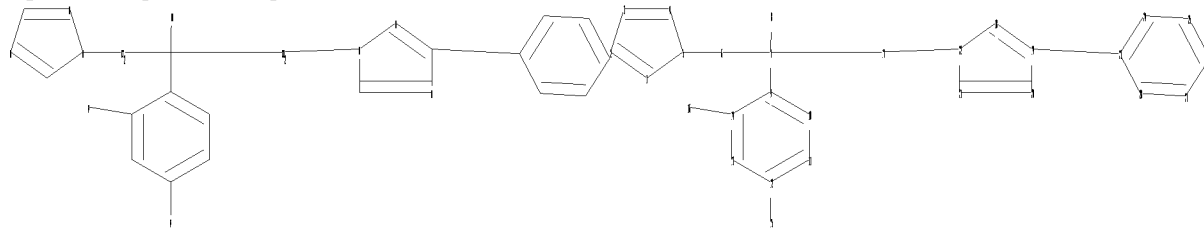
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chain nodes :

6 7 8 15 16 17

ring nodes :

1 2 3 4 5 9 10 11 12 13 14 18 19 20 21 22 23 24 25 26 27 28

chain bonds :

5-6 6-7 7-8 7-9 7-17 12-15 14-16 17-22 19-23

ring bonds :

1-2 1-5 2-3 3-4 4-5 9-10 9-14 10-11 11-12 12-13 13-14 18-19 18-22
19-20 20-21 21-22 23-24 23-28 24-25 25-26 26-27 27-28

exact/norm bonds :

1-2 1-5 2-3 3-4 4-5 7-8 18-19 18-22 19-20 20-21 21-22

exact bonds :

5-6 6-7 7-9 7-17 12-15 14-16 17-22 19-23

normalized bonds :

9-10 9-14 10-11 11-12 12-13 13-14 23-24 23-28 24-25 25-26 26-27 27-28

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom

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=> s l4 sss sam

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SAMPLE SCREEN SEARCH COMPLETED - 77 TO ITERATE

100.0% PROCESSED 77 ITERATIONS

3 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 1014 TO 2066

PROJECTED ANSWERS: 3 TO 163

L5 3 SEA SSS SAM L4

=> s l4 sss full

FULL SEARCH INITIATED 10:47:43 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1577 TO ITERATE

100.0% PROCESSED 1577 ITERATIONS

29 ANSWERS

SEARCH TIME: 00.00.01

L6 29 SEA SSS FUL L4

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SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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778.50

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SINCE FILE

TOTAL

ENTRY

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<http://www.cas.org/legal/infopolicy.html>

=> s 16

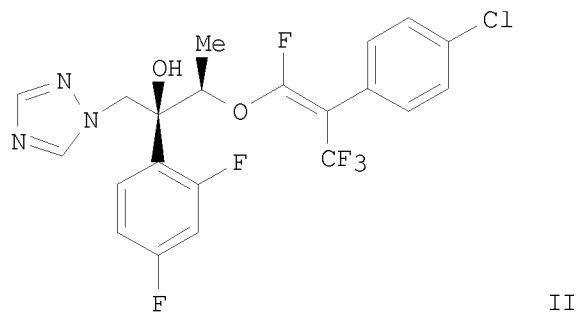
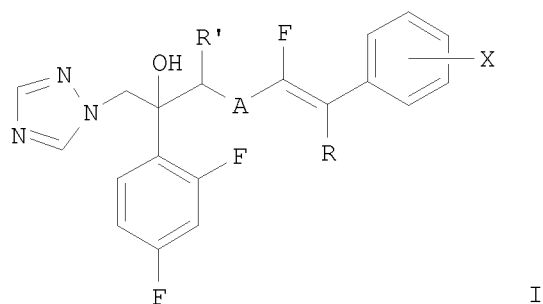
L7 3 L6

=> d cbib abs hitstr 1-3

L7 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

2005:141060 Document No. 142:240437 Preparation of triazolylmethanol derivatives as antifungal agents. Kim, Bum Tae; Min, Yong Ki; Lee, Yeon Soo; Park, No Kyun; Kim, Woo Jung (Korea Research Institute of Chemical Technology, S. Korea). PCT Int. Appl. WO 2005014583 A1 20050217, 58 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-KR1996 20040809. PRIORITY: KR 2003-55590 20030812.

GI



AB Title compds. represented by the formula I [wherein A = O, 1,2,4-triazolyl-PhO-, 1,2,4-triazolone-3-yl-PhO-, imidazolone-1-yl-PhO, imidazolinone-1-yl-PhO-; R = H or CF₃; R' = H or alkyl; X = H, halo, (halo)alkyl,alkoxy, 3,4-dioxyalkylene; and pharmaceutically acceptable salts, isomers or esters thereof] were prepared as antifungal agents for the treatment of humans or animals. For example, II was given in a multi-step synthesis starting from the reaction of Me (R)-lactate with morpholine. I

showed antifungal activity in vivo against a wide spectrum of pathogenic fungi, such as ATCC 10231 and MYA-573, and low toxicity in oral administration.

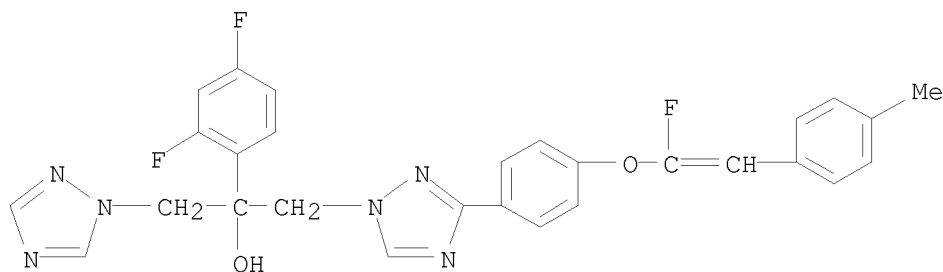
IT 844878-36-0P 844878-37-1P 844878-38-2P
 844878-39-3P 844878-40-6P 844878-41-7P
 844878-42-8P 844878-43-9P 844878-44-0P
 844878-45-1P 844878-46-2P 844878-47-3P
 844878-48-4P 844878-49-5P 844878-50-8P
 844878-51-9P 844878-52-0P 844878-53-1P
 844878-54-2P 844878-55-3P 844878-56-4P
 844878-57-5P 844878-58-6P 844878-59-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of difluorophenyl triazolylmethanol derivs. as antifungal agents)

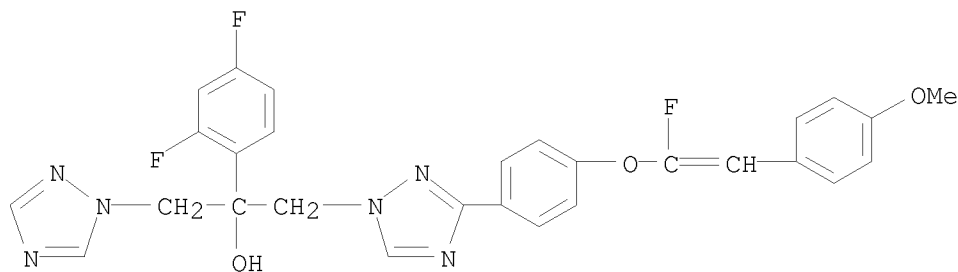
RN 844878-36-0 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[[1-fluoro-2-(4-methylphenyl)ethenyl]oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



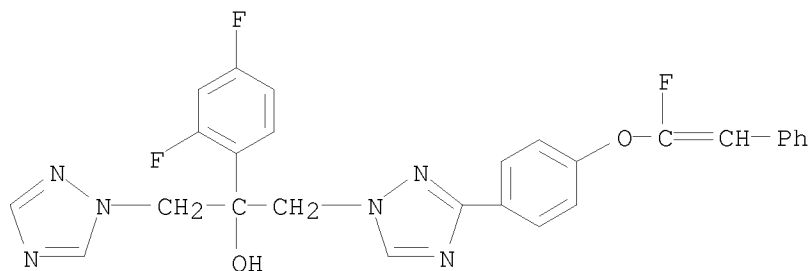
RN 844878-37-1 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[[1-fluoro-2-(4-methoxyphenyl)ethenyl]oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



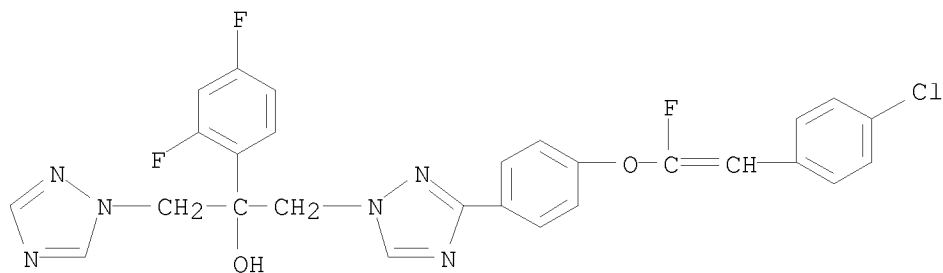
RN 844878-38-2 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[(1-fluoro-2-phenylethenyl)oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



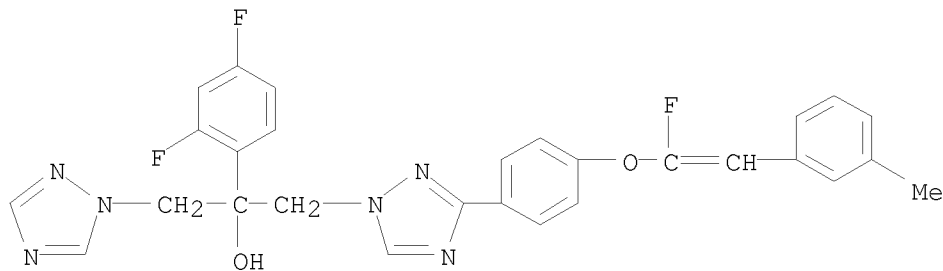
RN 844878-39-3 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[4-[[2-(4-chlorophenyl)-1-fluoroethenyl]oxy]phenyl]-α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



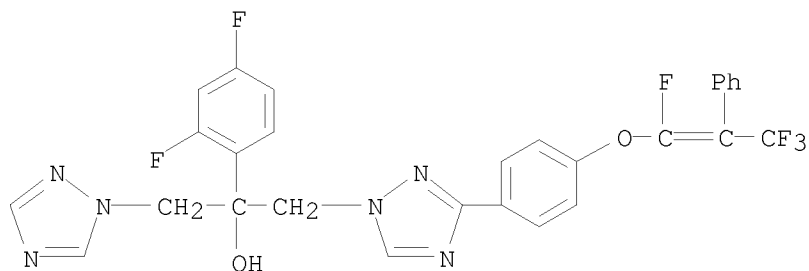
RN 844878-40-6 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[4-[[1-fluoro-2-(3-methylphenyl)ethenyl]oxy]phenyl]-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



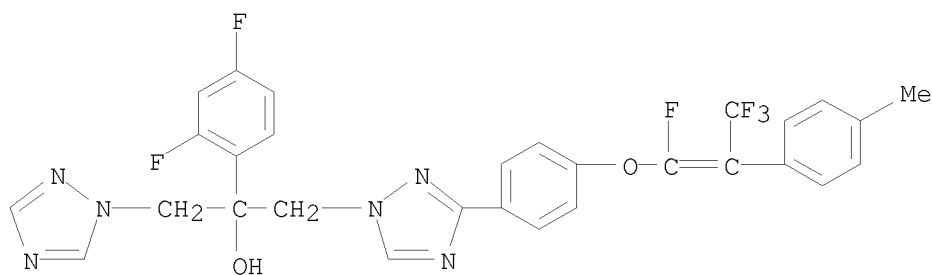
RN 844878-41-7 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[4-[[1,3,3,3-tetrafluoro-2-phenyl-1-propen-1-yl]oxy]phenyl]-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



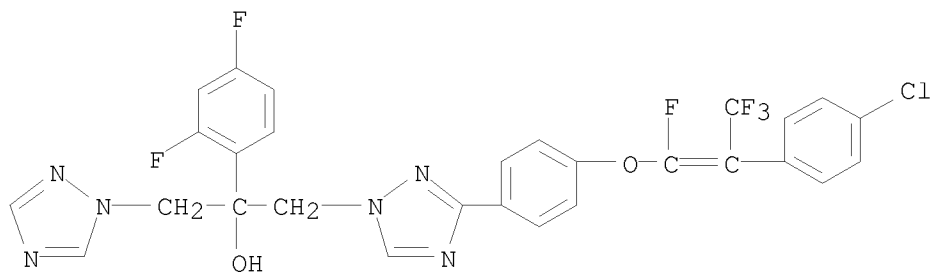
RN 844878-42-8 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[[1,3,3,3-tetrafluoro-2-(4-methylphenyl)-1-propen-1-yl]oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



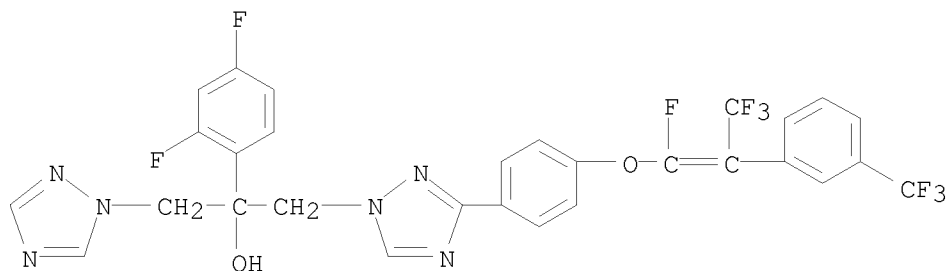
RN 844878-43-9 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[4-[[2-(4-chlorophenyl)-1,3,3,3-tetrafluoro-1-propen-1-yl]oxy]phenyl]- α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



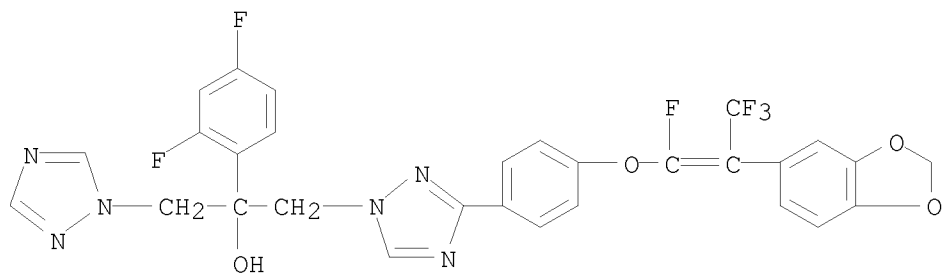
RN 844878-44-0 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[[1,3,3,3-tetrafluoro-2-[3-(trifluoromethyl)phenyl]-1-propen-1-yl]oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



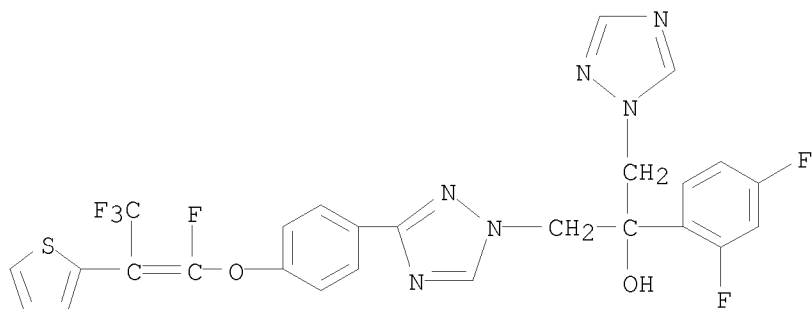
RN 844878-45-1 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[4-[[2-(1,3-benzodioxol-5-yl)-1,3,3,3-tetrafluoro-1-propen-1-yl]oxy]phenyl]-α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



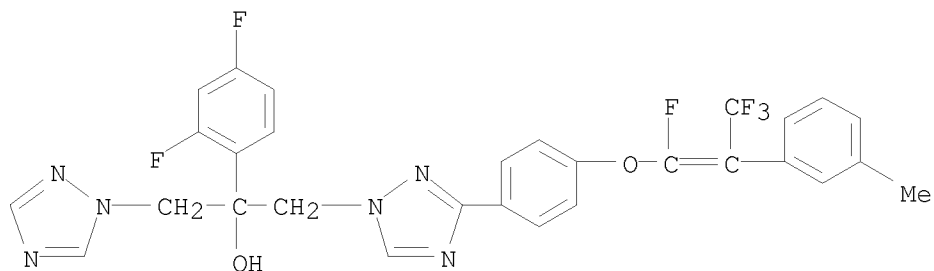
RN 844878-46-2 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[4-[[1,3,3,3-tetrafluoro-2-(2-thienyl)-1-propen-1-yl]oxy]phenyl]-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



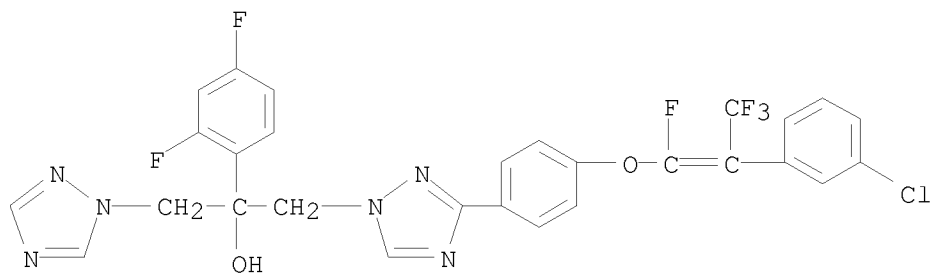
RN 844878-47-3 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[4-[[1,3,3,3-tetrafluoro-2-(3-methylphenyl)-1-propen-1-yl]oxy]phenyl]-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



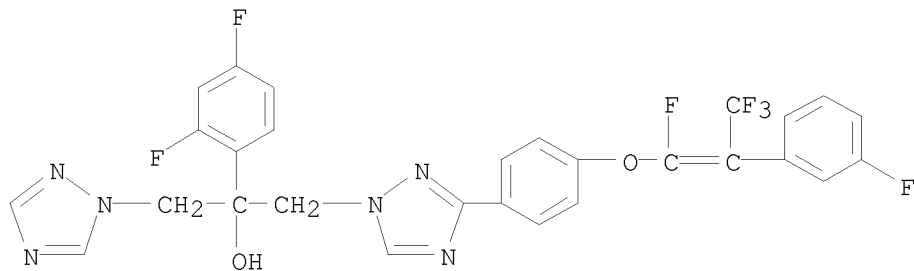
RN 844878-48-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[4-[[2-(3-chlorophenyl)-1,3,3,3-tetrafluoro-1-propen-1-yl]oxy]phenyl]-α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



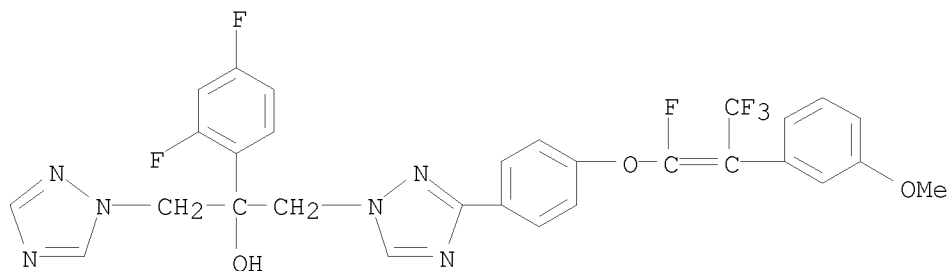
RN 844878-49-5 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[4-[[1,3,3,3-tetrafluoro-2-(3-fluorophenyl)-1-propen-1-yl]oxy]phenyl]-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



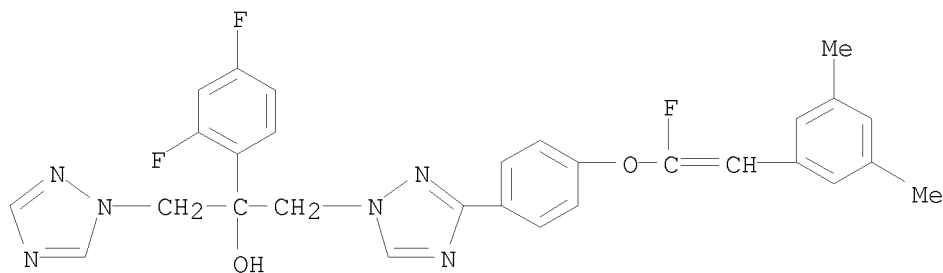
RN 844878-50-8 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α-(2,4-difluorophenyl)-3-[4-[[1,3,3,3-tetrafluoro-2-(3-methoxyphenyl)-1-propen-1-yl]oxy]phenyl]-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



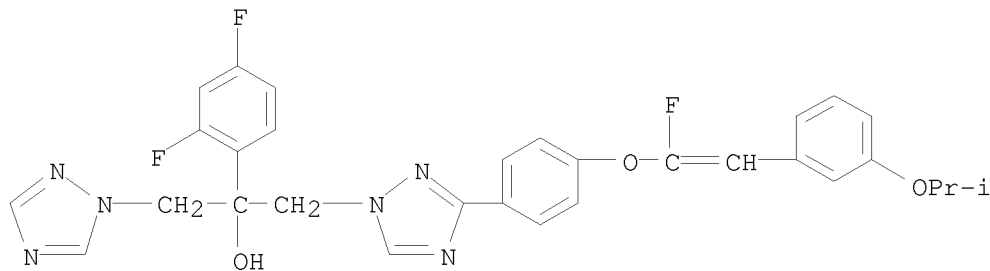
RN 844878-51-9 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[[2-(3,5-dimethylphenyl)-1-fluoroethenyl]oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



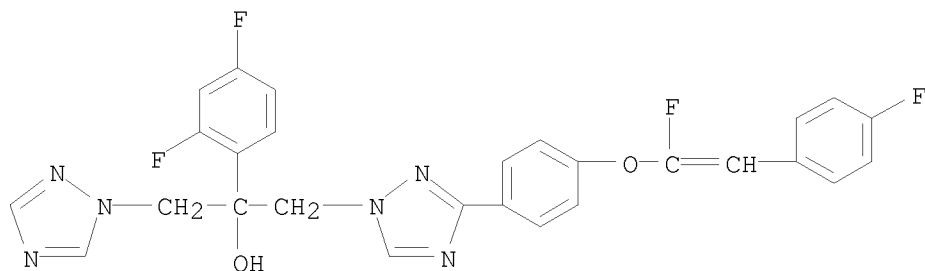
RN 844878-52-0 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[[1-fluoro-2-[3-(1-methylethoxy)phenyl]ethenyl]oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



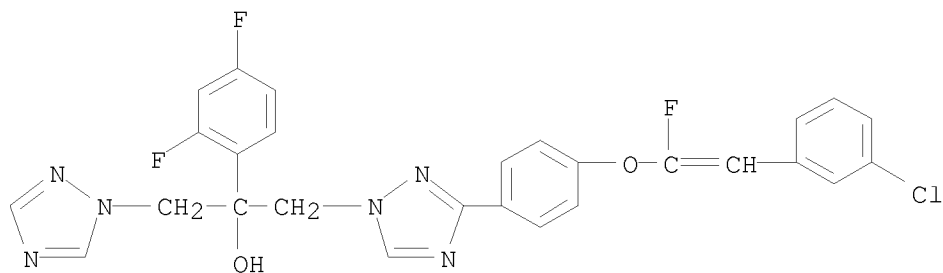
RN 844878-53-1 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[[1-fluoro-2-(4-fluorophenyl)ethenyl]oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



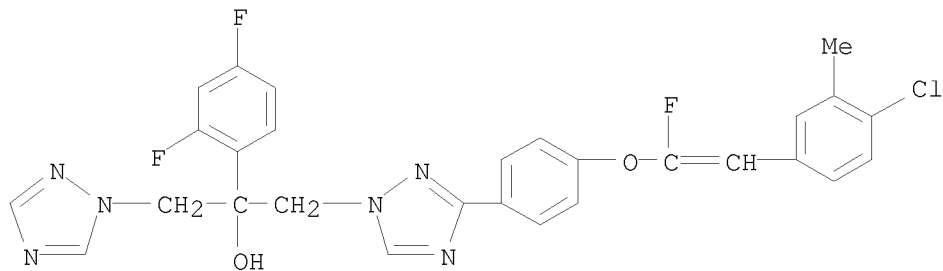
RN 844878-54-2 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[4-[[2-(3-chlorophenyl)-1-fluoroethenyl]oxy]phenyl]-α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



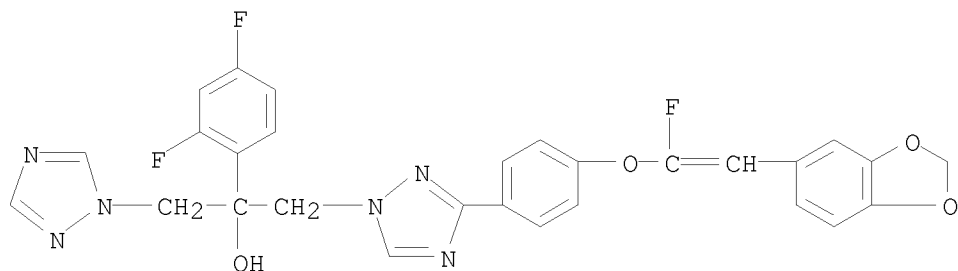
RN 844878-55-3 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[4-[[2-(4-chloro-3-methylphenyl)-1-fluoroethenyl]oxy]phenyl]-α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



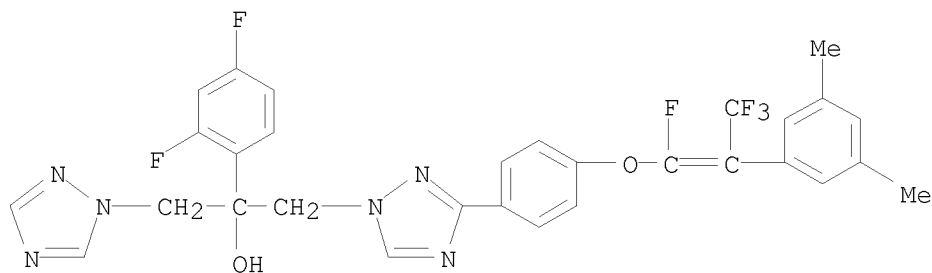
RN 844878-56-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[4-[[2-(1,3-benzodioxol-5-yl)-1-fluoroethenyl]oxy]phenyl]-α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



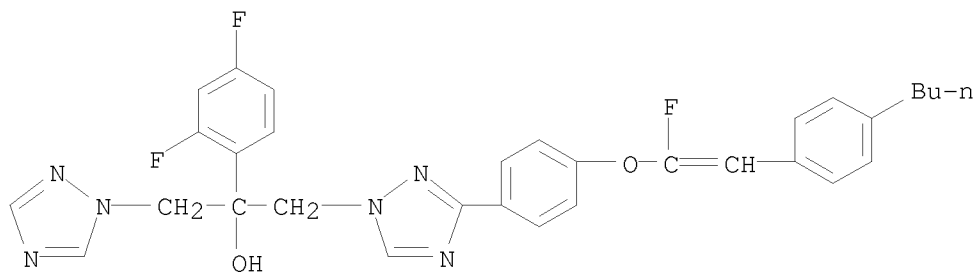
RN 844878-57-5 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[[2-(3,5-dimethylphenyl)-1,3,3,3-tetrafluoro-1-propen-1-yl]oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



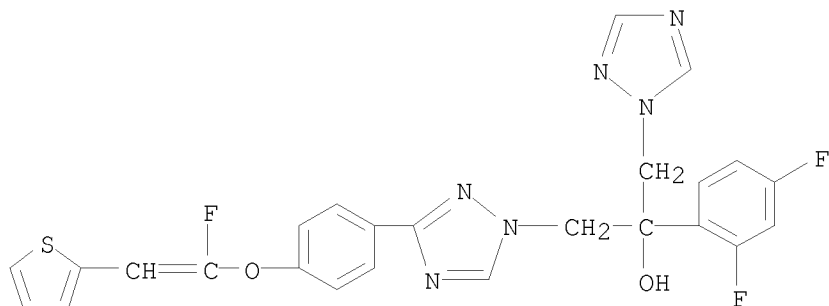
RN 844878-58-6 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, 3-[4-[[2-(4-butylphenyl)-1-fluoroethenyl]oxy]phenyl]- α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)

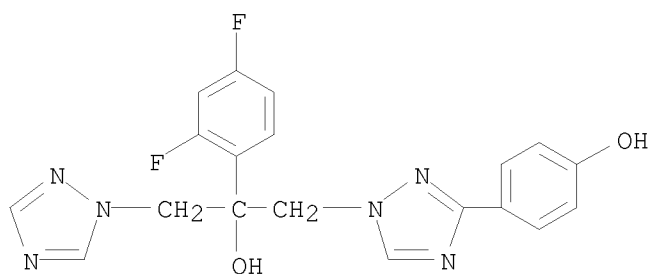


RN 844878-59-7 CAPLUS

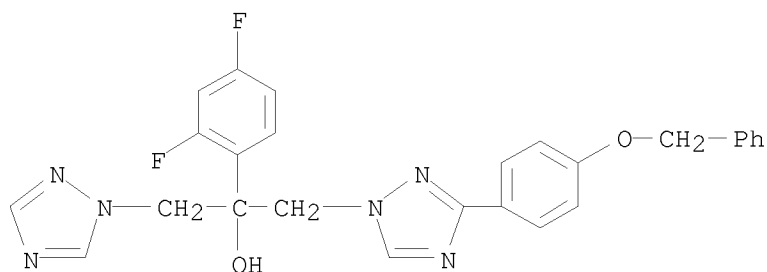
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-[[1-fluoro-2-(2-thienyl)ethenyl]oxy]phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



IT 844879-65-8P 844879-66-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of difluorophenyl triazolylmethanol derivs. as antifungal
 agents)
 RN 844879-65-8 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-(4-
 hydroxyphenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)

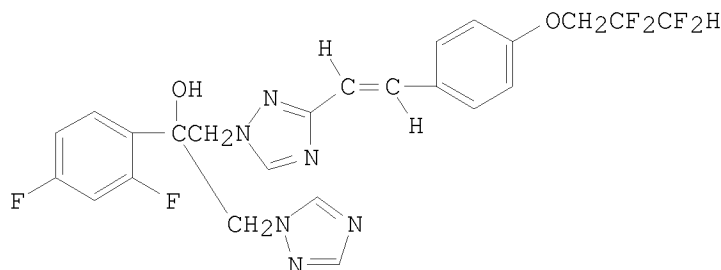


RN 844879-66-9 CAPLUS
 CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-[4-
 (phenylmethoxy)phenyl]- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX
 NAME)



L7 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
 1989:608650 Document No. 111:208650 Original Reference No. 111:34415a,34418a
 Synthesis and structure-activity relationships of a novel antifungal
 agent, ICI 195,739. Boyle, F. Thomas; Gilman, David J.; Gravestock,
 Michael B.; Wardleworth, J. Michael (Pharm. Div., ICI,
 Macclesfield/Cheshire, SK10 4TG, UK). Annals of the New York Academy of
 Sciences, 544(Antifungal Drugs), 86-100 (English) 1988. CODEN: ANYAA9.

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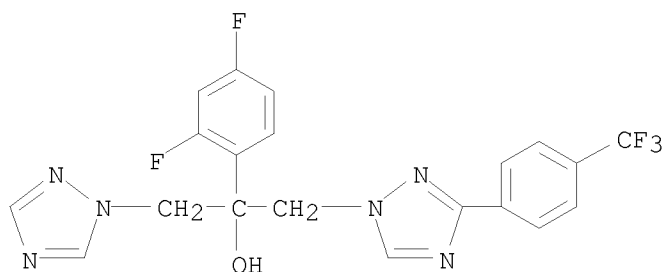
AB Antifungal azole derivs. are known to have potential for inhibition of host P 450 systems, and, in the attempts to increase the antifungal specificity of the inhibitor by identification of extra receptor binding within the enzyme complex, initial synthesis was guided by the structural requirements of the natural lanosterol substrate. With the aid of computer graphics, the 3'-styryl functionality was identified as a key structural element. For metabolically stable systems, in vitro-in vivo correlations exist, but optimizing oral activity resulted in the production of compds. with unacceptably long elimination half-lives. A disconnection of this relationship was achieved in pairs of structural isosteres with metabolic nonequivalence (CN:CONH2/OCH3:OCF3) and led to the identification of ICI 195,739 (I), a novel 3'-tetrafluoropropoxystyryl-substituted bistriazole tertiary alc., as the compound of choice.

IT 95728-32-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(fungicidal activity of, structure in relation to)

RN 95728-32-8 CAPLUS

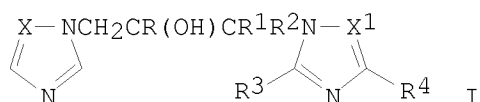
CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)-3-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



L7 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

1985:149273 Document No. 102:149273 Original Reference No. 102:23457a,23460a
Antifungal di(azolyl)propanol derivatives. Boyle, Francis Thomas
(Imperial Chemical Industries PLC, UK). Eur. Pat. Appl. EP 122693 A1
19841024, 45 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI,
LU, NL, SE. (English). CODEN: EPXXDW. APPLICATION: EP 1984-301011
19840216. PRIORITY: GB 1983-6351 19830308.

GI



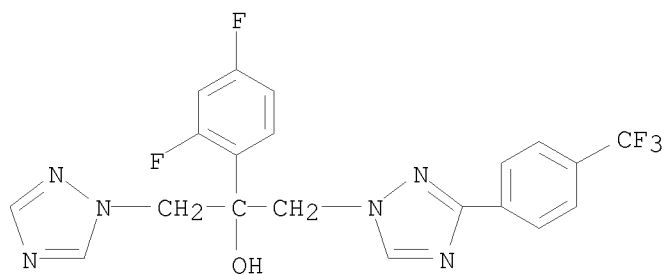
AB Title compds. I [X, X1 = CH, N; R = (un)substituted Ph, phenylalkyl, alkyl, cycloalkyl; R1, R2 = H, alkyl; R3, R4 = H, NH2, (un)substituted alkyl, Ph, heterocyclyl] were prepared Thus, 4-ClC6H4CH:CHCN was treated with EtOH-HCl to give 4-ClC6H4CH:CHC(:NH)OEt which was cyclized with HCONHNH2 to give 3-(4-chlorostyryl)-1,2,4-triazole (II). 2,4-Cl2C6H3COCH2Cl was treated with 1,2,4-triazole, followed by reaction with II in the presence of Me3S+OI- to give I [X = X1 = N, R-R2 = H; R3 = 4-ClC6H4CH:CH, R4 = H (III); R3 = H, R4 = 4-ClC6H4CH:CH]. III had a min. ED against Candida albicans and Trichophyton mentagrophytes in mice of 5 mg/kg orally.

IT 95728-32-8P 95728-46-4P 95728-49-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

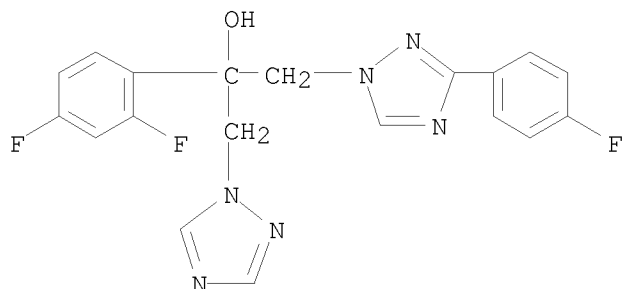
RN 95728-32-8 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)-3-[4-(trifluoromethyl)phenyl]- (CA INDEX NAME)



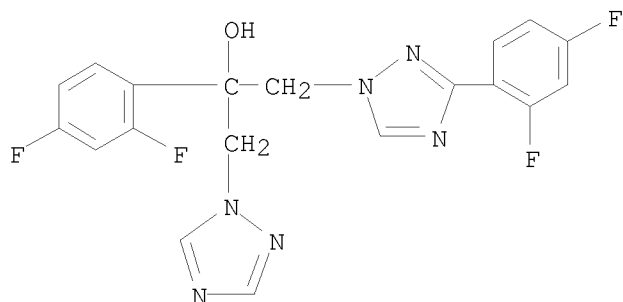
RN 95728-46-4 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α -(2,4-difluorophenyl)-3-(4-fluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



RN 95728-49-7 CAPLUS

CN 1H-1,2,4-Triazole-1-ethanol, α ,3-bis(2,4-difluorophenyl)- α -(1H-1,2,4-triazol-1-ylmethyl)- (CA INDEX NAME)



=> logoff

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

22.59

801.09

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-2.40

-64.00

STN INTERNATIONAL LOGOFF AT 10:55:37 ON 17 JUN 2008